Maple Orchard

AN APPLE USER GROUP PUBLICATION

LOGIC

August/September 1989
Volume 9 Number 4
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Inside:

Microsoft Works Reviewed
Mac to IBM Cable Project
How to Learn Mac Programming
AppleWorks to Mac
Questions & Answers
AppleWorks 3.0 Announced
Notice of Annual Meeting
An Adventure in IIc Repairs
Echo IIc ProDOS Patch

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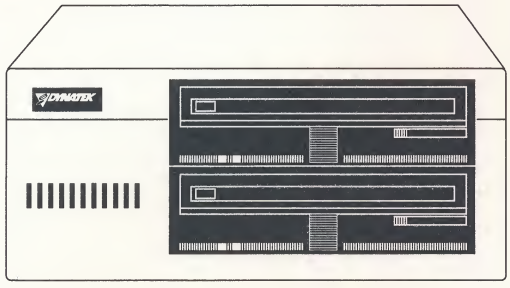

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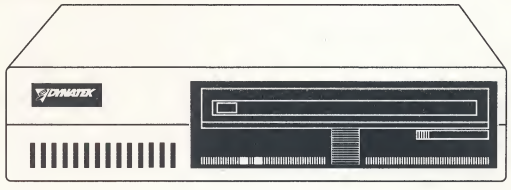

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Send submissions for Maple Orchard on Macintosh or Apple II diskette in ASCII text format, to the LOGIC address shown above.

Electronic submissions should be uploaded to the Director's Round Table on the LOGIC BBS.

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From the President

by Jim Low, President of LOGIC

Unlike many other voluntary organizations, LOGIC continues to hold meetings throughout the summer months. We hope that you will attend these meetings, which tend to be a little less formal than usual.

Right after Labour Day, on Tuesday, September 5, LOGIC holds it's Annual General Meeting. Please plan to attend. New Directors will be elected at this meeting, and you will have an opportunity to give us your ideas, complaints, and ask questions about the operation of LOGIC. Remember: LOGIC is a non-profit voluntary organization, and it is important that all members have their say in the operation of our user group.

The Nominating Committee is looking for "new blood" for the Board of Directors. If you have ideas for improving LOGIC, or know of someone else who has, please contact one of the members of the Nominating Committee (Geoff Gaherty, Jim Low, or Dan Mulvihill) by leaving a message on the LOGIC hot-line: 323-0828. Being a Director of LOGIC means hard work with no pay, but it is a very satisfying experience. You get involved with members' needs. You can help organize special events. You participate in the decision-making process.

I am encouraged by the number of members who have indicated that they are willing to help in various areas. Our General Manager, Sid Stulberg, has set up a database of members who have offered to help LOGIC in various areas. If you have a particular interest or skill you feel could benefit LOGIC, please contact our General Manager and have your name added to the Help List. Some examples of help needed:

Maple Orchard Mailings: Several members help out regularly. A few more names on the list would mean we don't have to call on the same people all the time. When you help with the mailings, you are the first to get your copy of Maple Orchard.

Special Events: A few times a year, LOGIC participates in events such as ComputerFest and the LOGIC Compute-in. We need people to help staff tables, or transport equipment. We always need someone with a station-wagon or pick-up truck to help at these events.

Meetings: The two meeting organizing committees (Macintosh and Apple II) always seem to be short of help. Aside from planning topics and finding speakers, there is help needed in setting up and running meetings.

There are many areas where you can help your club. The more participation we have, the better LOGIC will be. Please let us hear from you.

Maple Orchard Ad Rates Slashed

After a large drop in advertising revenue, LOGIC cut Maple Orchard ad rates in half. The new rates are based on a full page ad for $125, with a 10 per cent premium for either front or back inside cover.

Advertising revenue helps pay for the cost to produce Maple Orchard, currently about $1700 per issue. Apple Canada Authorized Dealers can pay for ads in Maple Orchard with Apple Canada Business Development Funds.

For more information, call Jim Ferr at (416) 677-2745 Mon. - Fri., 9-5.

From the Editor

by Jim Ferr

In the last instalment of this column, I complained that apathy seemed to have afflicted members of LOGIC. I'm glad to report that for some, this isn't true. At my request, we have a new Round Table dedicated to Maple Orchard on the LOGIC BBS, and three new individuals have taken the challenge of editing this issue of Maple Orchard via the BBS. The new assistant editors, Robert Whitelock, Peter Cameron, and Glen Denyer have edited most of the articles in this issue, and Rob and Peter have submitted articles of their own.

We still can't seem to attract letters to the editor, but with this issue Stephen Brown and Geoff Gaherty begin a Question and Answer (Q&A) column for Apple II and Macintosh users.

On the financial front, Maple Orchard has cut its advertising rates almost in half, to attract more advertisers. Advertising is a critical factor in offsetting the cost to produce Maple Orchard. Without it, we could not afford Linotronic pre-press output, and high quality offset printing — nor would you see colour on the cover. We owe our thanks to our advertisers, especially Auby Mandell of Arkon Electronics, who has stuck with Maple Orchard through thick and thin.

I hope you enjoy this issue of Maple Orchard. There are several type-in programs in this issue, and for Mac users, a Mac to IBM do-it-yourself data transfer cable. As always, you are encouraged to comment. Address your letters to LOGIC, Attn. Maple Orchard Editor, P.O. Box 696, Station A, Willowdale, Ontario. The postal code is M2K 2P9. Letters can also be posted on the Maple Orchard Round Table on the LOGIC BBS.

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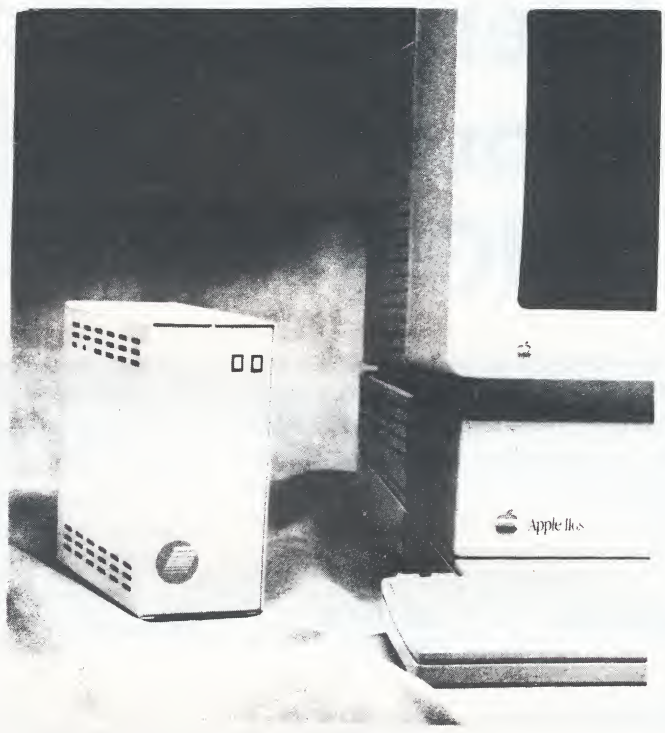

Technical Specifications

Hardware Specifications

Formatted Capacity:	20 Megabytes & 40 Megabytes	
Seek Time		
Track-Track:	20 msec	15 msec
Average:	65 msec	28 msec
Maximum:	150 msec	95 msec
Rotational Speed:	3600 RPM	3000 RPM
Disks:	2	
Heads:	4	
Recording Code:	MFM	
SCSI Interface		
Data Transfer Rate		
Peak:	1.5MB/s	
Sustainable:	< 625 KB/s (interleave dependent)	
Logical Block Size:	512 bytes	
Signal Interface:	Single-ended, 25pin, shielded	
Selection/Reselection:	Yes	
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Compatibility:	Apple IIe, Apple IIgs, LASER 128, LASER 128 EX	

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For the Apple IIgs:	Apple IIgs system software
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Storage temperature:	-40° C to 60° C(-40° F to 140 °F)
Relative Humidity:	8% to 80% non-condensing
Shock	
Operating:	3G's(Y Axis) 7 G's(X and Z Axis)
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Special Interest Groups (SIGs)

If you have a special interest, then one of LOGIC's SIGs may be for you. Here is a list of the current SIGs and their chairpersons. If you have a special interest not covered by one of these then perhaps you would like to start a new SIG. If so, please let one of the Directors know.

Appleworks	**Ian Harvie 266-6647**
Desktop Publishing	**John Brennan 485-0952**
Telecommunications	**Don Epstein 881-0532**
The Apple IIgs	**Blair Angus 281-2920**
Hardware	**Tom Klein 783-4952**

The June 17th **Hardware SIG** meeting was a big success (as always).

We adjusted an Apple II disk drive, assembled an Apple II Plus (from junk taken from my spare parts bin), got it working (!), and upgraded a Mac SE to 2.5 megs. So much for our successes. Unfortunately, a second Apple II disk drive did not respond to our efforts and had to be referred to better-equipped facilities.

Doughnuts and coffee were in evidence (thank you to the providers, you know who you are), and a good time was had by all.

The next meeting will be:

Saturday, July 15th, 1989
Armour Heights Community Centre
1:30 - 3:30 pm

Bring us your sick and lame computers, but BE THERE!

LOGIC Help List

LOGIC maintains a listing of members who are willing to help other members with hardware/software questions. Please observe the following rules when calling a LOGIC Helper:

1. Phone during the evening hours, (7-9 pm) unless otherwise specified.
2. You must be a LOGIC member (and don't be offended if you're asked!).
3. Remember that they are volunteers. At worst, the advice is worth what it costs you. At best, it can more than make your membership worthwhile.

More volunteers are needed NOW. If you have a particular interest or area of expertise, please consider sharing it with others. Just sent a note to the editor (see address beside table of contents).

Blair Angus, 281-2920
Apple IIGS, Telecommunications, Applesoft Programming, LOGIC BBS.

John Brennan, 485-0952
IIe, IIgs, DOS 3.3, ProDOS, Macintosh

Geoff Gaherty, 922-3399
(9am-5pm, Mon-Fri) Macintosh, Telecommunications, File transfers, LOGIC BBS.

Tom Klein, 783-4952
Communications, Hardware (elementary), printers, new users.

Jim Low, 690-3943
AppleWorks (database/word processing only), AppleSoft, DOS 3.3, ProDOS.

Robert Sutherland, 465-2945
New users, Apple Works, Ramworks.

Sid Stulberg, 245-1549
Publish It! (For the II family).

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Microsoft Works 2.0:

Getting Started on your new Macintosh

by Kenneth Cohen

Suppose that (as I recently did) you have just purchased a Macintosh SE (20 meg internal hard drive, 1 megabyte of RAM) and you're wondering which basic business oriented programs to purchase. Chances are that you might consider buying some or all of the following, for a total outlay of US $972.00:

Word processing:
Word 4.0 ..... $255.00
Database:
Filemaker II $237.00
Spreadsheet:
Excel $255.00
Communications:
Microphone II $225.00

(Quoted prices are from MacWarehouse, a popular American mail order company, in U.S. dollars, from a recent issue of MacUser magazine.)

When you buy any of these programs, you are buying a high degree of specialization. They include extensive capabilities which go far beyond what many users will ever need or want. If you are a professional writer, you may well require many of the features of a specialized word processor. If your office requires remarkably flexible record keeping capabilities, a specialized database will likely be a need. But if you have a few basic uses for each program, your money will be largely wasted on features you will rarely if ever use. You may in fact forget that many of those features even exist.

Microsoft Works is a popular Macintosh program of long standing. Version 2.0 was released last fall. It provides a dramatically less expensive alternative to the purchase of several expensive specialized programs, for a price as low as US $189.00 (from the same source). This program combines a word processor, database, spreadsheet, telecommunications, charting, and drawing. It includes elementary macro capability and a spell-checking dictionary. Like AppleWorks for the Apple II, you can buy add-on programs for it (from companies called Working Software Inc. and Lundeen & Associates). And its modules are integrated: information generated with any module can be combined with information generated by the others very easily, so that the program can be used for desktop publishing, form letters, and detailed reports.

Works requires a Macintosh Plus, SE or II, with at least two 3.5 inch 800K disk drives, and System version 6.0 (or higher). Like most good programs, Works begs to be run from a hard drive, and it should be. Like all business software published by intelligent people, it's not copy protected. From a hard drive, it boots very quickly and is up and running in seconds.

The most useful modules are the database and spreadsheet. The database is limited to 60 fields per record and 250 characters per field. The spreadsheet size is 256 columns by 16,382 rows, limited of course by available memory, with formulae limited to 200 characters. The numbers of records per file in the database, and filled cells per spreadsheet, is limited only by available memory.

The spreadsheet is especially comprehensive for a program of this kind. It includes more than 60 math, statistical, trigonometric, logical, financial, date, time and special purpose functions. Most fundamental spreadsheet features are available, though I would have liked to have hidden cells included. Formatting capabilities are extensive, and include various date and time formatting features, bold, underlining, and bordering. Cell notes is a useful feature for documenting formulae. Recalculation is done quickly because the program apparently knows which data have been changed, and acts accordingly. The spreadsheet also includes a useful Chart menu, with a number of different functions available under that heading.

The database appears to be a modified version of the spreadsheet, and includes a lot of the spreadsheet's flexibility. Computed database fields will use most of the spreadsheet's functions and all of its formatting features. Database formulae can include field names, operators, functions and numbers. Fields can easily be renamed, added and deleted. Data can be arranged in lists or forms, the appearance of the forms and arrangement of the lists being flexible. List windows, like spreadsheet windows, can be divided into up to four panes, and scrolled separately. Sorting is also comprehensive, with many available selection rules, "and" and "or" connectors for multiple linking of selection rules. Reporting capabilities, to my inexperienced eye, appear to be basic but useful.

The program's word processor is a subset of Microsoft Word, and a limited one at that. I use this function more than any other, and there are several features I would like to have which are probably only available in a few expensive programs, such as the ability to renumber numbered paragraphs, the ability to do simple arithmetic, and the ability to highlight changes to a document. All of the most common editing, formatting, and search capabilities are available, along with a 60,000 word spell-checking dictionary. The program's tabbing capabilities include left, right, centre and decimal tabbing, a big improvement over what I was accustomed to using previously. You can search and replace tabs and return characters. Six-lines-per-inch line spacing is available, which makes preprinted forms easier to work with.

Spelling-checking is adequate but has some problems. It appears to consume large quantities of memory. Checking a newly typed 20-page contract with my 1-megabyte Mac SE, for example, is almost a sure way to provoke problems related to memory limitation. If you want to make serious use of the spelling-checking facility, I recommend at least 2 megabytes of memory. In addition, you may find that the dictionary is not very large. Although individual words can of course be added to the dictionary easily, you may want to buy a more comprehensive dictionary for the program, of which several (including specialized items such as a medical dictionary and Black's Law Dictionary) are available. Finally, as with other spelling-checking programs I've seen, the "suggested spellings" are usually bizarre. You can rely on the program to identify your typing and

spelling mistakes, but don't rely on it to correct them.

Memory limitation problems also crop up copying large selections between modules. For example, you may have two word processing documents, and want to copy fifteen pages from one to the other. This can be done, if you have sufficient memory available in your system. If the program begins to warn you about a shortage of memory, the solutions are either to copy smaller selections at one time, or to buy more memory.

The telecommunications module lacks the macro capability which every decent communications program since ASCII Express Pro has had. Incoming text is written to the screen at a rate that appears slower than 1200 baud, though my modem is receiving that data at 2400 baud. VT-52 and VT-100 terminal emulation are available. With some fundamental improvements, this module could be useful, but as it stands, don't count on using it for very long.

The program's macro capability is a slight disappointment to a former AppleWorks user. The macro menu is essentially restricted to "recording macros", in other words, to recording key strokes and mouse movements. There is no built-in macro programming language — repetitive and some complex tasks cannot be done by the program's macro recording capability. However, the macro recording ability is very useful for such matters as typing "Yours very truly, Jim's Genuine Jeep Parts Inc., per Jim Jones" at the end of correspondence (though there are much better ways to accomplish this). [Editor's Note: *Do not* try to substitute Apple's MacroMaker for the Macro editor in Works. It is extremely hostile to Works, and will crash the system.]

Works 2.0 also includes drawing capability, which appears to have been included so that the program could perform elementary desktop publishing tasks. Drawing is available in the word processor and spreadsheet. It can be used, among other things, to draw boxes or circles around text, create logos or pictures using elementary drafting tools, and prepare charts. Using the Macintosh Scrapbook, drawings can be imported from other graphics programs and used in Works documents.

Works has the ability to import a number of different kinds of non-Works word-processing files, including files created by Microsoft Word and MacWrite, and all ASCII text files (including SYLK files). Rich Text Format (RTF) files can also be imported. A number of different database and spreadsheet files can also be imported. And all AppleWorks files can be imported using Apple File Exchange and a Microsoft-supplied file called Works-Works Transporter, which I used successfully to convert several spreadsheets and word processor files.

A feature called "Make Works Desktop" lets you save existing Works desktops (as many as you like, under different names for different tasks) without quitting the program.

There is a major bug in Works 2.0, but don't despair, help is on the way, so I'm told. Saving word processor files frequently seems to cause the system to crash (fortunately the crashes always occur after your file is saved, so there is no data loss). I have recently been told that a free upgrade is available to remedy this.

The Works 2.0 manuals include a detailed reference manual, a tutorial manual, and a quick reference chart. They are well-illustrated and easy to understand, and are thoroughly indexed. They are simply the best software manuals I've yet seen.

In summary, Works 2.0 is a generally well-polished, professional product which, for many users, will provide a complete set of easy-to-use software tools.

From the LOGIC BBS: Laser Printers

Date:06/17/89 Time:11:16am
Subject: Laser Printer
From: [JIMLOW] Jim Low

I may have a chance to pick up an HP LaserJet (used) at a good price. I'm not up on Laser printers, and would like to know what's involved in using this with a Mac. It's been used in an MS-DOS business that's closing up shop.

Date:06/18/89 Time:06:31am
Subject: Laser Printer
From: [Sysop] Geoff Gaherty

Advice to those considering purchasing an HP LaserJet: DON'T! Though there is software and hardware out there which claims to make the LaserJet work with a Mac, in my experience they work very poorly. Unless you buy special RAM cards with extra fonts, you are limited to one size of one font (Courier=monospaced typewriter) and size. The fonts available for the HP are quite different from the standard Apple laser fonts, and quite limited. The software claims to print any Mac document, but, in my experience, is unacceptably slow (4 to 5 minutes per page). New software is supposed to be in the works, but is still vapourware at present.

Date:06/19/89 Time:00:21am
Subject: Laser Printer
From: [Ron] Ron White

The HP LaserJet is not a PostScript printer and as a result a lot of the power of the high end software just could not be utilized. I use the HP Laserjet at work and would not consider it for my personal use just because I have experienced using a PostScript as well. You can really see the difference especially in the graphics area.

Date:06/19/89 Time:10:10am
Subject: Laser Printer
From: [JIMLOW] Jim Low

In other words, guys, are you suggesting that to avoid frustrations, I should save up and buy an Apple LaserWriter, rather than trying for a less expensive Laser printer?

Date:06/20/89 Time:06:28am
Subject: Laser printers
From: [Sysop] Geoff Gaherty

From my own fairly limited experience, I would rank laser printers as fol-

lows:

Apple LaserWriter NTX
Apple LaserWriter NT
Apple LaserWriter Plus
GCC Personal LaserPrinter
Apple LaserWriter

This rating is based mainly on flexibility with text and speed, and NOT on PostScript compatibility, which is relatively unimportant to me. In Consumer Reports' terms, the GCC Personal LaserPrinter classifies as a Best Buy (significant features for a reasonable price). In many cases, I actually prefer its slightly darker print to that of Apple's printers. The HP LaserJet and compatibles definitely class as Not Acceptable.

Date:06/22/89 Time:10:40pm
Subject: LaserWriters
From: [JohnH] John Hair

That was a good listing Geoff gave for text, but as far as graphics go I have found that the LaserWriter Plus has better grey scale gradation (less banding) than the NT/NTX; also I have found more ghosting in dark areas on the NT/NTX (light patches that are repeats of light areas that were printed just ahead of that area).

Date:06/23/89 Time:07:43am
Subject: Laser printers
From: [Sysop] Geoff Gaherty

Actually, if it's good text you want, and only occasional (non-PostScript) graphics, the GCC PLP does a LOT better than the LW NTX. The PLP seems to give better contrast and a bit more oomph to text, whereas the NTX looks rather spidery in comparison. I also like the GCC's Zapf Calligraphic better than its LW equivalent, Palatino. I gather that historically Zapf Calligraphic came first, and Palatino was a clone of it.

Date:06/23/89 Time:10:43pm
Subject: LaserWriter II series
From: [Jim] Jim Ferr

Yes, the LaserWriter Plus has better gray scales, but the designers at Canon (makers of the print engine for both machines) decided the market prefers blacker blacks. The blacker blacks take away from the grays and open up the ghosting can of worms. But just compare the blacks on a Plus to those of any LaserWriter II: there's no comparison.

Date:06/24/89 Time:00:53am
Subject: LaserWriter blacks
From: [JohnH] John Hair

With a good photo copier if you run a Plus and a II printout through them the blacks look the same but the Plus output still has better greys. If you are looking for a one-off then the II does have better blacks as long as it is in small areas only, but for multiples (photo copies) the Plus stands out.

...the LaserWriter Plus has better grey scale gradation (less banding) than the NT/NTX...

Date:06/24/89 Time:04:11am
Subject: Laser printers
From: [Sysop] Geoff Gaherty

In doing some work today, I was reminded that the PLP is much better than the NTX at handling special stock such as overhead transparencies and mailing labels. The NTX requires label stock to be hand fed, while the PLP will feed automatically. In both cases, you are strongly advised to use the direct paper path rather than trying to turn the labels up into the bin on top of the printer.

By the way, in case you missed the discussion on the Club Mac BBS, use ONLY label stock labelled for laser printer use! The labels sold for use in photocopiers tend to bleed adhesive under the higher temperatures found in laser printers, leading to repair bills in the kilobuck range!

Date:06/25/89 Time:05:08am
Subject: Labels/Laser
From: [JohnH] John Hair

Avery say that their labels for the Laser Printers are on flexible stock to let you put it in the LaserWriter tray and have them feed without using the direct paper path. This is from a conversation I had with Avery at MacWorld in January and not from personal experience.

Date:06/25/89 Time:09:12pm
Subject: Labels
From: [Sysop] Geoff Gaherty

My observation is from direct experience, trying to feed an NTX with genuine Avery labels, and it was definitely no-go. The same labels work perfectly in my PLP. I didn't try feeding them to the top bin of either printer, since it seemed like a dangerous idea!

Date:06/26/89 Time:07:47pm
Subject: Avery Labels
From: [MarkSissons] Mark Sissons

Geoff, we run Avery laser labels through the NT at work all the time. I don't know what kind of labels you had, but maybe somehow you had the wrong kind?

Date:06/27/89 Time:04:00am
Subject: Labels
From: [JohnH] John Hair

The Avery labels I saw were flexible, unlike the ones for use in the photo copier that were on a stiffer backing.

Date:06/27/89 Time:07:08am
Subject: Labels
From: [Sysop] Geoff Gaherty

These are genuine Avery laser printer labels. Maybe I just have a bad batch, or a difficult NTX...the latter may be the case, since it seems to be quite a finicky eater, jamming much more often than my trusty old (s l o w) PLP.

Join the discussion on the LOGIC BBS: call (416) 922-1626 and 300, 1200 or 2400 baud now, or call our General Manager, Sid Stulberg, for details on how you can access the LOGIC Information System.

Is Mac Shareware Dead?

by Geoff Gaherty

As part of my duties as Mac disk librarian, I log onto CompuServe and/or GEnie once a month to capture descriptions of the latest software uploaded there. I scan these in order to decide what seems interesting enough for me to download to put together new disks for the library.

I've been doing this pretty regularly since I first got my Mac five years ago. Over the years I've seen some pretty exciting stuff: utilities like Red Ryder, FEdit, StuffIt; fonts like Boston, Beverly Hills, and Clairvaux; desk accessories and startup files like MockPackage, DiskTop, and SuperClock; and games like Canfield, 1000 Miles, and Seahaven Towers.

Lately, things seem to have become less exciting. The utilities are mostly things like upgrade number 23.1A, fixing a tiny bug reported by one person in Dubuque who found it wouldn't work on a LaserWriter NTX running from a 128K Mac. The games are mostly things generated by WorldBuilder or yet another golf course for Mean 18 or whatever. There are hardly any new fonts, bit-mapped or laser, and no new graphics other than the R-Rated variety. Regarding the latter, I can't quite see why anyone would want to spend a fortune in online charges to download a fuzzy scan of something you can pick up on any newsstand (even in Toronto!) A large part of the apathy on the part of developers is probably a result of the massive non-compliance with requests for shareware payments; very few shareware developers get more than a handful of payments for their work. When did YOU last send in a cheque?

I began to think I was getting jaded, but then I opened the July MacUser to discover a quotation from Dan Shafer specifically referring to HyperCard stackware on the commercial networks: "MacNET dropped its HyperCard-only forum back to a subset of the Mac forum. Upload rate [on CompuServe] is way, way down. It sure seems like the bloom is off the HyperCard rose, at least for the moment." But the problem is not just with stackware: this month there was not one single new program or graphic for the Mac II, not a single one!

That's the supply side of the equation...what about demand? Disk sales from the LOGIC Mac library have dropped off alarmingly over the past year. In the early days when software consisted of MacWrite, MacPaint, and Multiplan, people were starving for software and would buy just about anything...take a look at some of the early Mac library disks! Now most users have sophisticated commercial packages which do most of what they want efficiently; why buy shareware? Yet there are many utilities, fonts, and add-ons which greatly enhance the usefulness of the commercial products. For example, only recently have a few Mac word processors given you automatic "real" curly quotation marks rather than straight "typewriter" quotation marks (look closely at the quotation marks in this sentence to see what I mean). Yet I have a startup file called Quote Init in my system file which lets me turn them off and on at will in every program I own.

I suspect that the virus scares have also done major damage to the image of public domain software, despite the fact that not one virus has ever appeared in the 300 plus disks which LOGIC has produced. Actually most viruses seem to have been spread through beta test and demo [or pirate] versions of commercial software, rather than through public domain and shareware sources.

Whatever the causes, sales of our library disks have diminished to the point where they are failing to cover the costs of downloading their contents, so that LOGIC's directors are seriously considering discontinuing our library. This would be a tragedy for me, since I find PD/shareware to be the spice of the Mac software feast. Word, Excel, and PageMaker are great, but they don't put a clock on my menu bar or let me have fun playing solitaire!

What can YOU do? Well, I've mentioned a bunch of really great programs in this article... How about trying one or two of them out yourself?

Mac to IBM PC Cable Project

by Mark Sissons

What follows is a description of how to build a Macintosh to IBM null modem cable. If you don't know what that is, read and learn!

Why didn't I just go out and buy the cable I needed, you ask? Two reasons. The first is that the type of cable I required is not standard. The second reason is, it would cost more than thirty dollars to have a cable custom made. Before I go on, there is more than one company in the Toronto area that can make a custom Macintosh cable. One of them is called Dealer Direct, in Markham near Apple Canada. This was actually my source for a Mini DIN-8 connector (yes, you can buy just the connector) in the Toronto area. I suggest you let them do it if you have never used a soldering iron before today.

At work, I have a Macintosh Plus on my desk. Thirty feet away, there is an IBM XT clone (hisssss). There is data on the clone that I would like to process with Excel on my Mac, and it would also be nice to put some MS-DOS shareware on the clone. Since I can download files from bulletin boards and bring them to work on a Macintosh floppy disk, I have part of the transfer accomplished. Before having the cable, it was necessary to visit my dealer (who had an Apple 5 1/4 PC drive attached to a Mac II) and transfer the files onto an MS-DOS format disk. Now, I can connect the cable from the modem port on the Macintosh to the RS-232C serial port on the clone. Then I start a program like

ZTerm on the Mac and Telix on the IBM and send the files over the cable. These are telecommunication programs that you would normally use to call an information service like the LOGIC BBS. The terminal programs can also be used with a cable hooked directly between the two computers; hence the name "null modem cable".

I had the wire I needed in a nice long thirty foot length, so this was something that I didn't have to buy. There needs to be a minimum of five wires in the cable. The leads in the cable should be made from multi-stranded wire. There is a cable designed just for this purpose and it is used to make... computer cables! The rest of the components consist of a mini DIN-8 male connector, a female (or male if that is what you need) DB-25 connector and matching hood, and five push-pin sockets for the DB-25. I got the mini-8 DIN plug from Dealer Direct for $1.75 (Federal and Provincial sales tax not included). I bought the DB25 connector there as well, for 80 cents. I already had a hood for it — Dealer Direct or almost any electronics outfit would have them. (For instance, Electrosonic, just south of Steeles and east of the 404.) You will need to go there (or a similar place) to get the DB25 push-pin solder type sockets. I'm not bothering to mention the soldering iron and solder, but you should also have some solder flux paste in a tin. You will also need some RTV silicone and some Scotch Magic Transparent Tape (1/2 inch).

Look at figures 1, 2 and 3 to see which pins I am referring to in the table below. The pin numbers on the DB25 connector are small, but you should be able to see them. Table 1 shows the Macintosh signal names and how they translate into normal RS-232C.

Figure 1
Female Mini DIN-8
on computer

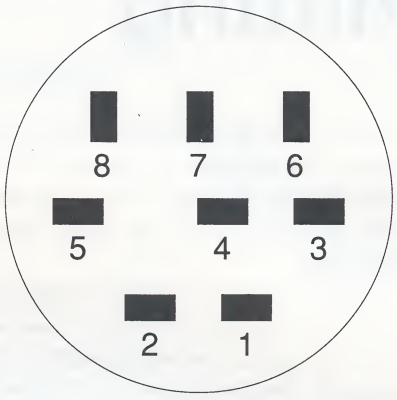
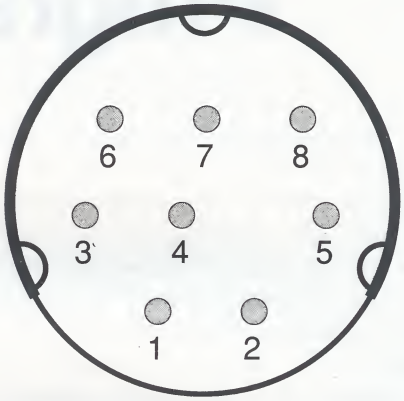


Figure 2
Male Mini DIN-8
on end of cable

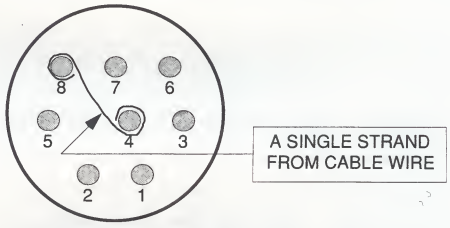


As you can see, the names of the signal lines don't completely match up. This is because the Macintosh uses the RS-422 standard instead of the RS-232C standard and this allows longer cable runs and much higher transfer rates (the reason why AppleTalk works). There is a way to make the two standards compatible for cable lengths of up to fifty feet. It involves grounding the positive Receive Data line of the Mac and leaving the positive Transmit Data line not connected. All other signals are crossed-over to their counterpart as follows: Connect DTR to CTS and CTS to DTR. Connect SG to SG. Connect TD (-) to RD and RD (-) to TD. Table 2 shows the cable design.

This design will provide the two hardware "handshake" lines that will allow you to send data back and forth at higher rates. Models earlier than the Macintosh Plus did not have both input and output handshake signals but instead have a +5V and +12V in a DB9 socket.

I am not going to explain how to solder, etc. but you will find that your work goes better if you tightly twist the ends of the wires using needle-nosed pliers (see figure 5). You have to put the stripped ends of the wires into small openings of the DB25 connector and this will help significantly. Even though you can get solder with resin in the core, I found that this was inadequate for a good clean flow of the solder and I used solder flux from a tin and applied the flux to the connectors with a small screwdriver (jeweller type but even a toothpick would be fine). Once you have connected the leads to the DB25 connector, you will need to tackle the other end. Trust me on this one... leave it for tomorrow! It takes more care and patience and you will need a fresh start to do a good job.

Figure 3
Wire side of Mini DIN-8



So now it is tomorrow, right? Slip the

Table 1: Macintosh Serial Port Signals

Pin	RS-422 name	RS-232 equivalent
1	HSKo (handshake out)	DTR (data terminal ready)
2	HSKi (handshake in)	CTS (clear to send)
3	TXD- (transmit data negative)	TXD (transmit data)
4	GND (signal ground)	GND (signal ground)
5	RXD- (receive data negative)	RXD (receive data)
6	TXD+ (transmit data positive)	leave unconnected
7	not connected	
8	RXD+ (receive data positive)	must be grounded to pin 4

Table 2:
Cable Design

Mac to IBM null-modem cable

Mini DIN-8 Male		DB-25 Female	
1	DTR (HSKo) -----	5	CTS (HSKi)
2	CTS (HSKi) -----	20	DTR (HSKo)
3	TXD (TXD-) -----	3	RXD (RXD-)
4 & 8	GND (& RXD+) ---	7	GND (GND)
5	RXD (RXD-) -----	2	TXD (TXD-)

Continues on bottom of page 12

How To Learn Mac Programming

by Jim Ferr

It's been three months since my initiation to Macintosh programming, but I've been interested in Mac programming for much longer. I posted countless questions on bulletin boards, trying to discover the best development system to learn on, which development system had the most power, and so on. One of my messages was immortalized on these pages (Maple Orchard Vol. 8 No. 4) in an edited message thread from the LOGIC BBS. My message, asking about pros and cons of Borland Turbo Pascal and Lightspeed Pascal, was dated January 2nd, 1988. After writing that message, I went out and purchased Borland Turbo Pascal. A frustrating three months later, in March, I re-sold the package and gave up hope of ever learning to program on the Mac. I had tried to learn using only the Borland manual for reference, so in retrospect, my failure wasn't surprising.

But time heals all wounds, as they say, and after being hired by Apple Canada in late 1988, my interest was rekindled. I had access to 'Inside Macintosh', Volumes I through V, and purchased a dreadful book called 'Macintosh Pascal Illustrated', by Scott Kronick. Well, it wasn't that bad, but it certainly didn't teach much about the Macintosh Toolbox or the structure of a normal Macintosh application — why? Because it was written to teach 'Macintosh Pascal', the interpreted Pascal written by THINK and formerly sold under the Apple logo. It was later re-written as THINK's Lightspeed Pascal, the world's most popular Pascal compiler for the Mac. (I didn't think much of the writer's humour, either, but this isn't a book review.)

You're going to groan when you hear how I learned Mac programming. I took a five day course, at Apple's Developer University, in Cupertino. Nice if you're an employee, you say, and I have to agree with you, although you can attend such a course as close to Toronto as Ann Arbor, Michigan. The point is, after taking this course and writing a small Mac application, I'm comfortable enough with Mac programming to tell you how to learn it without facing the many frustrations I endured. Take note, however, that I won't be trying to teach you Mac programming in this article — I'm going to show you what I think would be the easy way to learn.

The Macintosh is a powerful computer, and it is very different from systems like the Apple IIe or the IBM PC. Naturally,

Figure 4

hood of the Mini-8 DIN plug over the wire now to avoid the embarrassment of not being able to put it on later (you've never done that). Get out the five push pin connectors (see figure 4) and attach one to each of the wire ends. The needle-nosed pliers will come in handy. Here is the delicate part. Get a paper clip and open it up and bend in into a "U" shape with the two ends about a sixteenth of an inch apart. Take a strand from one of the wires in the cable and carefully wrap a couple of turns onto each end of the paper clip. This "S" shaped wire is then slipped over the pins 4 and 8 of the mini-8 DIN connector on the wiring side (pins are thicker and shorter on this side, see figure 3). Take a rest!

The next thing is to familiarize yourself about which coloured wire goes where on the connector. Put a liberal amount of the solder flux into the end of the socket pins that are now attached to the end of the cable wires. Don't worry since you can clean off the excess flux afterwards. The very first one to attach is pin 4 (signal ground) because it is in the middle and you'd have trouble getting it on later! Also carefully solder where the strand of wire wraps around pin 8. A low temperature soldering iron will avoid softening the plastic disc that holds all the pins...BE CAREFUL! Take another rest!

Figure 5

Complete all the other connections indicated in the table and don't use too much solder as there isn't much room between the pins and solder "bridges" can occur. The solder flux in paste form really helps to keep the solder from joining across the pins. Work slowly and carefully until you are done. Clean excess flux from your work. My method was to run it under hot water, and then to rinse in Isopropyl alcohol. All clean? Get the silicone and use a toothpick or something similar to put silicone between all the push-pin connectors to ensure electrical isolation between the signals. There is probably a shield that comes with the mini-8 DIN plug and this might cause an electrical junction between the pins. I took some Magic Transparent Tape and put one layer on the inside of the two shield halves to ensure that no surprises would come later. Once the silicone is set, you can assemble the shells of the mini-8 DIN plug and pull the hood down over the assembly.

Go have a well deserved beer before checking out your wiring job. If you made an error in the pin hookup that is just a reversal of some of the wires, make the fix at the DB25 connector end and save yourself from a headache. Oh, you've already got one. Take an Aspirin. No headache? Shout for joy, 'cause your done! I can be contacted by E-Mail on the LOGIC BBS if I've forgotten something or you get yourself into trouble. No, I did not do it all in one evening.

then, there are many things you must learn before sitting down to write a program. You've probably heard this before, but it's true: you will need 'Inside Macintosh' if you want to learn to program the Macintosh. Volumes I and II are a good start, but before you are done you'll probably need volumes III, IV and V as well. Think of it as a good investment. You will also need Macintosh TechNotes, which can be considered an extension of 'Inside Macintosh'. You can obtain 'Inside Macintosh', by Addison-Wesley, at any well-stocked book store. Both 'Inside Macintosh' and Macintosh TechNotes are available from APDA (the Apple Programmers and Developers Association) in the U.S., or ATW (Apple Technical Warehouse) in Toronto.

Reference material is nice to have, but you will want some books on programming the Mac. Of the Macintosh programming books I have read, 'Macintosh Revealed' Volume I and II are the best I've seen so far, because they teach you the important aspects of the Mac Toolbox, which is at the heart of all Macintosh programs. Stay away from books like 'Macintosh Programming Secrets' until you're an accomplished Mac programmer. Such advanced books will surely confuse beginners and may encourage some bad habits.

After obtaining 'Inside Mac', the next step is to choose a development system. The leading contenders are THINK's Lightspeed Pascal, THINK's Lightspeed C, and Apple's Macintosh Programmer's Workshop, or MPW for short. I chose Lightspeed Pascal through simple necessity: my course was taught in Lightspeed Pascal, concurrently with Lightspeed C. When I asked why they weren't using MPW, the instructor told me it would take at least two days of class time to learn it! (They have a separate 2-day course for MPW.) MPW is a series of packages: Pascal, C and Assembler are the more commonly used modules. Each of these requires the MPW development environment, which is now (with version 3.0) a separate module. MPW is big and somewhat ugly, incorporating a Unix-like command line user interface. It does have some redeeming qualities, but is not the kind of thing you will want to spend time learning to program with — unless you're already familiar with Unix, Xenix, or MS-DOS, and won't be intimidated by the environment. Keep in mind that the latest version, MPW 3.0 (still in beta, but released) will need 2.5MB of RAM and at least 10MB of hard disk space to be used effectively.

For the vast majority of programmers, Lightspeed Pascal or Lightspeed C is the best choice. There are plenty of major applications written using both these systems, so don't worry that you won't be using a "professional" package. If you don't know either C or Pascal, you might decide to play it safe like I did and tackle Pascal first, as Pascal is the language the Macintosh Toolbox was written for. With C, there will be a little extra work involved getting the syntax correct when calling the Toolbox. This can be confusing for the beginner, because almost all Apple documentation is written for Pascal routines. With C, it's easier to make structural errors than it is under Pascal — but then again, it's also easier to bend the rules a little when you want to, and know what you are doing. C is worth your time if you already know the language, or plan to program exclusively in C and/or assembly language, for whatever reason. Otherwise, start with Lightspeed Pascal; you can always learn C at a later date if you want to.

I won't mention other development environments except to say they are not as popular as these, which you can think of as "the big three". It is in your best interest to use a development system which is popular: more is written about the popular development environments, and sources of support and sample programs are many and varied. Don't be tempted to cut corners with something less well-known. The big three are continually being updated and revised, as Macintosh technology changes. The problems you encounter with a lesser-known package will often sound like Greek to those with one of the big three, and half the battle is knowing where to go for help. If you have a modem, thousands of developers are no farther away than a phone call... Both CompuServe and GEnie have Macintosh Development forums (or Round Tables), and Symantec, the company that owns the THINK product line, also maintains a presence online.

Once you've selected your development system, you might consider purchasing or borrowing a book or two on your chosen language. I knew enough Pascal to get by with 'Inside Mac' and the Lightspeed user manual, which contains a reference to the Pascal language. You may not be as lucky, and might find yourself referring to a "standard language text", which will have all kinds of examples that use things like 'readln' and 'writeln' -- built-in Pascal functions you will never use in a Macintosh application. Too bad, as there is great need for a good Pascal tutorial specifically for Mac programmers. (If you know of a good one, please let me know.) The same goes for C, whether it be Lightspeed C or MPW C. I have heard rumblings of a good book on C programming for the Mac, but I don't recall its title.

Assuming you are still solvent, and actually have time to sit down in front of your computer, you are ready to learn Macintosh programming. First, you will have to learn your development system. The Lightspeed packages are relatively easy to use, because they employ Macintosh user interface conventions you've come to expect of any Mac application. MPW is a special case, but with an option called "Commando", you can make it easier to use as well. The best way to learn Lightspeed Pascal or C is to follow the tutorials on creating, debugging and building a Macintosh application that are included. They are excellent and well-written, using sample Macintosh source code which they provide.

So now you're ready to learn Macintosh programming! But wait! There are more books to read. Apple's 'Human Interface Guidelines: The Apple Desktop Interface', by Addison-Wesley, is essential. All those wonderful user interface conventions are not automatically created by the Macintosh Toolbox — far from it. In fact, you'll be shocked at how much is left to the programmer. But the tools are there if you know what to do with them, and this book will tell you. No Macintosh programmer should be without it. Similarly, no Macintosh programmer should be a Macintosh neophyte. Without a great deal of familiarity with several Macintosh applications, you can't hope to write one.

As a Mac programmer you must be prepared to do a lot of reading, mainly because the Macintosh has such a wealth of usable routines in ROM and in the operating system. Good Macintosh programming requires you use the tools available rather than write your own code that, for example, talks directly to hardware. As you know, hardware changes are frequent,

and with each change comes the likelihood that software written for specific hardware will "break". If you use the tools at hand, the ROM routine may be changed with a "ROM patch" in a later version of the system software, and your code will continue to work flawlessly.

Sample Macintosh Program

```
begin  { main program }
    init_mac;                    { initialize toolbox }
    mem_reserve;                 { reserve memory for fatal error Alert }
    get_our_menus;               { get menus }
    open_our_window;             { get window }
    set_defaults;                { set globals to default settings }
    event_loop;                  { our event loop }
    FlushEvents(everyEvent, 0);  { get rid of left over events }
end.
```

Once you decide what kind of program you want to make your first Macintosh program, you will save time and energy by taking these steps: 1) Create a "template" Macintosh application. 2) Learn to use the Toolbox calls you'll need. 3) Write your application one routine at a time, incorporating what you've learned. 4) Update your template for future projects.

Mac programming is cyclical: you will proceed from template, to learning, to writing, to modifying your template, to re-learning, to re-writing, and so forth. Once you are over the initial "hump" of understanding how a Mac program works, it gets easier.

Creating a template application is very important. Most applications have a lot in common: they start by initializing the Toolbox, then proceed to set up a few things before dropping into the "main event loop" until the user quits the program. The sample shown illustrates how simple Mac programs can be. Only the main program is shown, so none of the subroutines (properly described as "procedures and functions") are listed.

Looks simple, doesn't it? In essence, it is simple. Most of the code in the main event loop will be the core of your Mac program template.

The time has come for you to learn to program the Mac. Get 'Inside Mac', choose your development system and go to work. If you follow the steps just outlined, your plunge into the depths of Macintosh programming should an enjoyable one — not a traumatic experience. Good luck on your first program.

AppleWorks to Mac
(and Back!)

by Rob Whitelock

Included with Macintosh system software update 5.0 and up, Apple provides a program called Apple File Exchange (AFE for short), which permits Macintosh users to send and receive files to and from other disk formats, namely ProDOS and MS-DOS. For ProDOS translation there is, however, one hitch. The files must exist on a ProDOS 3.5 inch floppy disk. If you don't have one, you can borrow one or have a friend or dealer copy the files you need to a 3.5 inch ProDOS disk.

AppleWorks to Mac

Once Apple II information is on a 3.5 inch disk, AFE will convert text files from Apple II format to Macintosh format. A text file is a standard ASCII file, without formatting information (such as bold face, underlining, tabs, etc.). This is nice, except that you have to reformat everything on the Macintosh once it gets there.

For people trying to move AppleWorks documents to Microsoft Works, an add-on file translator for AFE permits normal AppleWorks files (not text files) to be transferred to the corresponding Works file, complete with formatting. Works to Works Transporter is a conversion utility available on a variety of public bulletin boards (including LOGIC's) for free. It can be opened by AFE, and provides the routines necessary for AppleWorks to Microsoft Works conversion. This transfer works for word processing, data base and spreadsheet documents alike.

Mac to AppleWorks

Unfortunately, Works to Works Transporter is a one way street. It does nothing to permit the movement of Works files to AppleWorks. This may be because AppleWorks is not as powerful or flexible as Works on the Mac: the limitations of the Word Processing, Data Base and Spreadsheet segments on AppleWorks are smaller than those for Works. It is one thing taking a document which is guarantied smaller than limitations and converting it, quite another to have to check the document to ensure that it is not too large before converting it from Works to AppleWorks.

This does not mean that it cannot be done: It does mean that we're back to using unformatted text-only files. AppleWorks is capable of reading ASCII files into its word processor and data base, so it is possible to move Works files over, as long as the document limitations are not exceeded.

To move Macintosh files to AppleWorks, you must first save your file as a text-only (ASCII) file. In Microsoft Works, this is the Export file option. For word processor documents, this is enough: Your text file can be converted using AFE's text translation routine, and then read into the AppleWorks word processor as an ASCII file from the ProDOS 3.5 inch disk.

Data Bases

Life is more complicated with the data base. When Microsoft Works saves data base information as a text file, it inserts a tab character between the field entries of each record. When transferred into AppleWorks' data base, these tabs appear as # signs. Worse still, the individual fields are squashed together into one field entry,

because AppleWorks expects individual fields to be separated by carriage returns. In order to make the transition, you must reformat your data base information, replacing the tab characters with carriage returns.

The trick is to save your data base as a text file, load it into a word processor with search and replace capabilities that can also search and replace hidden control characters, and replace the tabs with carriage returns. Microsoft Word is an excellent choice for this task, as it allows the user to specify substitutes for the control characters (ex. ^t for tab, ^p for a return). A less expensive alternative is the shareware text editing DA: McSink (or its commercial counterpart, Vantage), which is capable of the same kind of searching, and is not restricted to 28K or 32K as many text editing DAs are. Once this replacement has been done, your text file can be saved and converted by AFE to a ProDOS ASCII file which can be read directly into the AppleWorks data base.

Works to Works Transporter is a conversion utility available on a variety of public bulletin boards...

There is one caveat to this whole procedure: AppleWorks has file size restrictions which are smaller than those for Microsoft Works. An AppleWorks data base can have only 30 fields per record, and each field is restricted to 78 characters. The maximum number of records in a file must be no more than 2250. You must also remember the number of fields in each record, or else the data set will get jumbled. (If you indicate that there are five fields, and there are really six, the last field of record 1 will be read as the first field of record 2, and so on).

Spreadsheets

As of this writing, a convenient method of transferring Microsoft Works spreadsheets to the Apple II is not known, at least to me. There are several reasons for this.

First, the AppleWorks spreadsheet module does not accept text files as input. Data Interchange Format (DIF) and Visicalc format files can be read by AppleWorks, but not text. The DIF file contains only values, not formulas, and therefore is of limited value.

Second, the formula structure between AppleWorks and Microsoft Works is incompatible. Where in AppleWorks one would type "@sum(A1...A5)", in Microsoft Works the formula would read "=sum(A1:A5)".

Third, Microsoft Works contains a number of mathematical formulas that do not exist in AppleWorks. Translating them would create garbage in AppleWorks.

All of this aside, it should not be impossible to move files. Microsoft Works saves spreadsheet information in the same fashion as data base information, except that instead of fields and records, we are dealing with columns and rows. The order of saving is exactly that: Spreadsheet information is saved by row, across columns. Cell data in a particular row is separated by tab characters, with a carriage return at the end of the row of data. The rows are saved in order from 1 to 9999 (or the highest row number). It may be possible, depending on the size of the spreadsheet, to treat it as a data base in row/column order.

This procedure will only work for values, not formulas. The spreadsheet should be saved as text (values only), and reformatted as described above. Again, you would have to remember the number of columns (fields) there are to the spreadsheet. Once this is done, the text file containing the data could be converted using AFE to ProDOS text translation, and read into an AppleWorks data base. Once there, the data can be transferred to the spreadsheet by saving it as a DIF file, then reading the DIF file into the spreadsheet. All formulas are lost in this procedure, but the values would be intact.

This seems like a very complicated procedure, and it is. The alternative, if one must move information from a Macintosh to an Apple II, is to re-type, but re-typing can be a pain.

When we use computers in the first place to automate our work, we should be able to use them to move the information. For those like myself, who have an Apple II at work and a Mac at home, these tricks can save a lot of time and sweat.

Q & A Section

Mac Q&A

Q: What version of Apple's system software should I be using with my Mac? How do I know which version I'm using? Where do I find a particular version?

A: Generally you should use the most recent version which is recommended for your particular Macintosh model, though the older versions mostly run on newer machines, but without the newer features. From time to time Apple has published tables giving their recommendations, but I have put together my own simplified version below.

Finding out the version of Finder you're using is easy: just choose "About the Finder..." from under the Apple menu. In recent versions of Finder, this will also tell you which version of System you're using, too. For older versions, your only clue is to select the System icon and choose "Get Info" from the "File" menu. Look at the date the System file was created (not the date it was last modified, since that changes with every change of fonts and DAs). Compare that to the dates in my table.

Most of the major revisions of Apple's system software appeared in LOGIC's software library and are still available on request; I've given their disk numbers in the table. You should ALWAYS use the recommended combination of System and Finder, plus the auxiliary files and utilities contained on that particular set of system disks; mixing and matching is an invitation to disaster!

Computer	System	Finder	Created	LOGIC Disks
Mac 128K	-	4.1	Sep. '85	16
	3.0	5.1	Jan. '86	62
	3.2	5.3	June '86	84-85
Mac 512K	3.2	5.3	June '86	84-85
Mac 512Ke	4.1	5.5	Apr. '87	128-129
Mac Plus	4.2	6.0	Sep. '87	177a-d
	6.0.2	6.1	Apr. '88	224-227
Mac SE	6.0.2	6.1	Apr. '88	224-227
Mac II	6.0.2	6.1	Apr. '88	224-227
Mac IIx	6.0.3	6.1	Dec. '88	244-247
Mac SE/30	6.0.3	6.1	Dec. '88	244-247
Mac IIcx	6.0.3	6.1	Dec. '88	244-247

Q: I'm using my Macintosh for the first time with my modem. Control-S and Control-Q won't stop and start scrolling as they did on my Apple II. What do I use instead? Is this a peculiarity of the software I'm using (the Works communications module)?

A: First of all, don't even think of using the Works comm module! From everything I've heard, it is the weakest part of Works, and is inferior to just about all available Mac terminal programs, with the exception of the notorious MacTerminal. Red Ryder 9.4 (on LOGIC disk 192) is probably the way to go (unless you have a Mac II or an SE/30 on which it doesn't work). The Control key only appeared on the Mac keyboard with the advent of the Apple Desktop Bus, and was put there for Apple II users; most Mac programs don't recognise or use it as yet. Most terminal programs on the Mac use the "Command" key (the one with the clover leaf on it) for a "Control" key. This creates major problems, since the Command key is used by most Mac programs for keyboard shortcuts. Red Ryder gives you the option of using the Command key, in which case you lose ALL keyboard shortcuts, or using the Option key, in which case you retain the shortcuts; this is the alternative I prefer myself. Red Ryder also gives you an on-screen Pause/Resume button, which issues the proper control characters automatically, and three programmable on-screen control buttons, which come pre-programmed for the three most common control characters used in telecommunications: Control-S, Control-Q, and Control-C.

Q: Today for fun I decided to open up both my System folder and another folder which I have named Misc. Folder. Inside I found a many splendid things including programs that I never even knew existed. First of all, what is a print spooler and what function does it have? Secondly, if I put a DA into my system, do I also have to have it on my hard disk? Those DAs and fonts really take up a lot of room.

A: A print spooler is a program which uses some of your computer's memory to hold a file when you send it to the printer. The spooler then prints the file while letting you use your computer for other things. Once you've loaded a DA or font into your system file, there's no need to keep it on your hard disk, though it's a good idea to keep a backup copy on a floppy somewhere in case of a crash. There are a few exceptions; for instance TOPS includes a file called TOPS DA which MUST be in the system folder for TOPS to operate properly. I know: I tried removing it to save space!

BBS Q&A:

Q: I just uploaded a number of files to the BBS. Some of them I have no idea what they do or what they are for. I discovered them on a network at U. of T. last week, and thought that maybe they would be of some interest to other LOGIC users. I believe that they are all public domain programs, but I am not sure.

A: Thanks for the uploads, but I get VERY nervous when people upload programs they've never even tried running, and whose source they're unsure of! THAT is precisely how viruses get spread. The downloads on the LOGIC BBS are mostly contributed by users who have tried them, like them, and would like to share them with others; this results in a fairly small but very high quality selection. So, PLEASE, try out programs before you upload them, and only upload the very best.

Some of the files you uploaded are quite ancient. I try to keep only very recent material in the downloads, because hard disk space is limited, and users get very angry if they download what appears to be a "new" file, and then find it's something they've had for years. One way to find out a file's age is to look at its creation date using "Get Info" in the "File" menu of Finder.

Q: I'm having trouble uploading a file to the BBS. I tried four times and each time after uploading, the file wasn't in the file list.

A: In order to protect against illegal uploads (copyrighted software, etc.), uploads do not appear in the listing until after they have been approved by a sysop. Check again after twenty-four hours. The same is true on most other BBSes.

Apple II Q&A

Q: I have an Apple II Plus with 64K. I just purchased a game and when I run it, it says "128K REQUIRED". Is there a 128K memory expansion that I can get?

A: Yes and no. There is a 128K memory expansion available, called the Saturn 128K Card, but it won't enable you to run this program. Most of the time, when you get the "128K REQUIRED" message, it actually means that 128K Apple IIe (or IIc or IIgs) hardware is needed. Since the memory on a IIe (and IIc and IIgs) is not handled the same way as it is on a II Plus, adding extra memory will not help.

Q: Can I run AppleWorks on my Apple II Plus clone?

A: Yes, but it may not be worth it. First, your II Plus CLone must be capable of running ProDOS, that is, it must have 64K of memory (48K + 16K "Language card" in slot 0) and the computer must power up with the "APPLE][" message on the screen. Secondly, you must have an 80-column display card, such as the Videx Videoterm (or compatible) installed in slot 3. The machine's keyboard should be capable of producing the "^" and Control-@ characters. Finally, in addition to a copy of the AppleWorks 1.0 to 1.4, you must get a program called "Plusworks". Plusworks permanently modifies the AppleWorks program so that it will work on an Apple II Plus. Unfortunately, a 64K Apple II Plus will have only a 10K "desktop" in which to load your files. This is highly restrictive. However, if you buy a Saturn 128K Memory Expansion (or compatible), Plusworks can allow you up to a 121K desktop.

Q: I have an Apple IIe with a Grappler+ printer interface and a Roland 1011 printer. When I do a printout from AppleWorks, the lines sometimes start or end in the wrong place. What's wrong?

A: It sounds like AppleWorks is not set up properly for your printer interface. If you are using an early version of AppleWorks (before 1.3) get it upgraded to at least version 1.3. Early versions don't allow you to customize the printer interface codes easily. If you have a later version of AppleWorks, do the following: From the main menu, go to option 5 (Other Activities), then option 7 (Specify information about your printer(s)), then option 4, 5 or 6 (Change printer specifications), then option 5 (Interface Cards), and change the code from Control-I80N to Control-I0N. (There are no spaces in there, and the "0" is a zero!)

Q: I am using an Apple II Plus connected to a GVC 1200 baud modem through an Apple Super Serial Card. The software I am using is ASCII Express. Whenever the screen is cleared, and sometimes at the beginning of the line, I lose some charac-

ters. Is there something wrong with my computer?

A: Not likely. Check the DIP switches on the Super Serial Card: switch 2-6 should be on (in the closed, or "up" position). This will enable "interrupt requests" which force the machine to pay special attention to incoming characters. If this switch is already on and characters are still being lost, there is something wrong, probably with the Super Serial Card.

Q: I bought a GVC 2400 baud modem one-and-a-half years ago and it worked fine on my Apple IIe (with Super Serial Card). Recently, the GVC died (all the lights were be lit and it hummed loudly). It was fixed, but the new one works on a friend's Apple IIGS but it won't work on mine.

A: When your GVC 2400 modem was repaired, they replaced the motherboard, and gave you one of the newer ones (ATI0 gives product code 249 and ATI1 gives ROM checksum 135). The old ones defaulted to "Carrier Detect Signal always true" which was fine, but the new ones default to "Carrier Detect Signal follows state of modem". You have two options: (1) Have your IIGS friend set the modem for "Carrier Detect Always true" using the command AT&C0&W. This will work, but if the modem ever gets completely reset (eg. by AT&F), you will be stuck once more. (2) Set your Super Serial Card for "Secondary Clear To Send" instead of "Normal RS-232". This is done by turning switch 1-7 OFF (normally ON), and switch 2-7 ON (normally OFF).

This months' Q & A contributors are Stephen Brown (Apple II) and Geoff Gaherty (Macintosh). Sorry, LOGIC cannot be responsible for errors.

Do you have a question relating to your Apple II or your Macintosh? Here's your opportunity to have it answered by experienced users. Questions with wide appeal will be published and answered in this column. Send your questions to LOGIC by:

Canada Post: "Q & A Column", LOGIC, P.O. Box 696, Station "B", Willowdale, Ontario, M2K 2P9

Voice: Logic Office @ (416) 323-0828. Leave your name and your question on the answering machine, and specify that the question is for the "Q & A Column".

LOGIC BBS: (416) 922-1626 300-2400 bps, E-mail to [SBrown].

AppleWorks 3.0 Announced in A2-Central

by Jim Low

AppleWorks version 3.0 will probably be in distribution by the time you read this. According to the A2-Central newsletter, this upgrade was announced at the National Educational Computing Conference in Boston on June 20. This is a major upgrade, with many improved features. Although it will still work on a 128K IIc, IIe or 256K IIgs, with a smaller desktop size — about 40K. For best use, 256K (or 512K on a IIgs) and two drives or a 3.5" drive is recommended.

After reading about the features in AppleWorks 3.0, it makes that old statement "all I need is my Apple II and AppleWorks" even more true. For most home and small business applications, this is all you need.

It is impossible to describe all of the many new features in this short article. I will mention just a few that seem important.

If you have the memory, you can now have a 16000 line word processing document or a 16000 record database. The spreadsheet can be 9999 rows by 127 columns.

Remember the frustrations of the 250 line limit of the clipboard? No more. The size is now limited only by your memory.

Don't you wish you could scroll past column 80 in your database while in multiple record layout? In version 3.0, you can. You can now sort on multiple categories, and do single category finds. Instead of 8 report formats, you can now have up to 20.

In earlier versions, AppleWorks automatically pre-loaded into memory if you had sufficient memory. Now you have the option to pre-load or not, and you can select only one or two of the modules to pre-load.

Usually, those running AppleWorks from RAMdisk don't want to pre-load.

Do you have the frustration of trying to use special features of your printer that are not supported by the option menu or printer setup? No more. Now AppleWorks gives you six printer codes you can define yourself and select from the option menu.

Wouldn't it be nice if you could use those two-or-three-across label forms to print out your mailing labels from the database? Now you can, with the multiple labels across a page feature.

Other features include:

- built-in spell checker more advanced than QuickSpell
- real tabs and multiple tab rulers
- print page range, print date and time
- more printers supported and up to 3 custom printers
- many spreadsheet improvements and new functions
- move data directly from one module to another
- easier and more direct way to select directories and ASCII files
- allows dates in four formats (but, apparently, not the SI system of recording dates which is year, month, day). Time in am/pm or 24 hours.
- files created with earlier versions of AppleWorks fully compatible
- files created with AppleWorks 3.0 will be compatible with earlier versions of AppleWorks only if new features are not used.

Claris will even let you trade in any Apple II word processor for the new version of AppleWorks 3.0, for $129 Canadian. Current AppleWorks owners (any version) can upgrade for $99 Canadian. The upgrade is a complete AppleWorks 3.0 package including box, disks and manuals. To obtain an upgrade order form, call Bowden's (they handle Claris Canada upgrades) at 1-800-668-8948, or in Toronto at (416) 860-0794.

Golden Shorties

by Jim Low

It's fun, and sometime useful, to slap together short BASIC programs. Here are a few of the many I have put together in the past five years.

The first program is a "one-liner" game that I slapped together in a few minutes when my kids complained they didn't have any new games to play. This was good for a few hours of entertainment, and allowed me to spend my time writing other golden shorties.

```
10 X =  INT ( RND (9) * 10) + 1:
INPUT "GUESS NUMBER I AM THINKING
OF (1-10): ";N: PRINT "RIGHT!";:
IF X <  > N THEN  FOR I = 1 TO 6:
PRINT  CHR$ (8);: NEXT : PRINT
"WRONG!": GOTO 10
```

You will never come up with a super accurate value of "pi" with BASIC, but the following method gives you seven place accuracy in a few seconds.

```
1  REM  PI
5  HOME
6  PRINT "CALCULATING 'PI' USING
ARCHIMEDES METHOD:": PRINT
10 A = 4 *  SQR (3)
20 B = 6
30 A2 = (2 * A * B) / (A + B)
40 B2 =  SQR (B * A2)
50  PRINT A2 / 2,B2 / 2
55  IF A2 = B2 THEN  PRINT :
PRINT "PI WAS CALCULATED AS: ";A2
/ 2: END
60 A = A2
70 B = B2
80  GOTO 30
```

This will calculate and display prime numbers, with the distribution shown for every hundred integers. You will notice a slowdown as the program progresses. I once let this program run for three days!

```
1  REM  PRIME.NUMBERS
10 A = 100
12 B = 1
20 K = 0
200  FOR I = B TO A STEP 2
300 NP = 0
400  FOR J = 3 TO  INT (I / 2)
STEP 2
500 T1 = I / J
600 T2 =  INT (I / J)
700  IF  ABS (T1 - T2) < .0000001
THEN NP = 1:J =  INT (I / 2)
800  NEXT
900  IF NP = 0 THEN K = K + 1:
PRINT I;" ";
901  IF I = 3 THEN  PRINT I;"
";:K = K + 1
1000  NEXT
1100  PRINT : PRINT K;" PRIMES
BETWEEN :";B;" AND ";A;"."
1200 A = A + 100:B = B + 100
1300  GOTO 20
```

This is a handy little utility. You can read any text file and quickly display to your screen. This works properly with ProDos. To use with DOS 3.3, add an extra PRINT: after GET X$:. If the file is not in the current directory, you must enter the full pathname when asked to enter the text file name.

```
1  REM  READ.TXT.FILE
10  HOME
20  INPUT "ENTER TEXT FILE NAME
TO READ: ";N$
30  ONERR  GOTO 100
40 D$ =  CHR$ (4)
50  PRINT D$;"OPEN "N$
60  PRINT D$;"READ "N$
70  GET X$: PRINT X$;: GOTO 70
100  POKE 216,0
110  IF  PEEK (222) = 5 THEN
PRINT : PRINT "END OF DATA": GOTO
130
120  PRINT : PRINT  CHR$
(7);"SOMETHING IS WRONG"
130  PRINT D$;"CLOSE"
```

This little program displays all the printable ASCII characters to your screen. Note that line 20 starts with ASCII 32. Those between 0 and 31 are not printable characters. You can try changing this line to include those below 32, but you will get a weird display. The ASCII numbers between 128 and 255 duplicate those between 0 and 127.

```
1  REM  SHOW.CHAR
2  REM  USE CONTROL-S TO PAUSE
AND RESTART DISPLAY
10  HOME
20  FOR I = 32 TO 127: PRINT I,
CHR$ (I): NEXT
```

Do you have any short programs that others might find fun or useful? Send them in to Maple Orchard and share them.

Wizardry Fixes

by Peter Cameron

I had owned an Apple for about three years before I finally broke down and decided to try Sir-Tech's Wizardry. I borrowed Proving Grounds of the Mad Overlord (Wizardry I) from a friend and was launched into a new world. I then added the Second, Third and Fifth scenarios to my collection.

But there was something about the text display that bothered me. Why was the text spaced out across the screen? And why were other friends with clones or odd-brand 80 column cards unable to play the game when I passed it on to them?

I found part of the answer in the February 1986 Washington Apple Pi magazine. Steven Pearce offers a solution for the problem in Proving Grounds. For some reason the program turns on the 80 column card. It doesn't need the extra memory: The game is designed to run in 48K on a standard Apple II.

I found his solution worked for Proving Grounds and decided to give it a try with the second and third scenarios. I found it works there too.

First, make a backup of the boot disk. Work only on the backup. I always make a backup of game disks, if possible, and play from the backup. That way, an accident won't finish off an expensive disk. I know because I lost a couple to various accidents. Copy II+ or Locksmith should be able to make a backup for you.

Use a sector editor (Diskworks on LOGIC's ProDOS 17 disk works well) and search the backup for the following Hex string: 03 18 38 48. On Proving Grounds this was found around block 167 and at 166 on Knight of Diamonds. On Legacy of Llylgamyn I found it at block 239. Change the 38 to a 00 or FF. Write the changed sector back to the disk — the backup, of course. This change stops the program from turning on the 80 column card on boot and gives you nice 40 column text on the 40 column screen. Much easier to look at. It has the added bonus of allowing the programs to work on some machines with non-standard 80 column cards. Without this patch, the last video many people see is the card being turned on.

Before booting the backup, remember to write protect it. If the program sees the disk is write enabled it will crash.

Lemmings!

by Geoff Gaherty

(Reprinted from Volume 8 Number 5)

No, this isn't a review of some new arcade game. I'm referring to the small mammals which are reputed to follow their leaders blindly off a cliff into oblivion.

What brought lemmings to my mind was a call I received a few weeks ago from a client who wanted some training in Macintosh database management. It seems that the client, a large university department, was getting into Macintoshes in a big way. Initially I offered to consult with them to help them decide on the database which would best meet their needs. They informed me that they had already had a committee look into this, and they had decided on... dBASE Mac. I immediately felt a sinking sensation, as all the information at my disposal indicated that this program was one of the least distinguished players in the very competitive Mac database field.

As with so many things, software is often chosen on the basis of its name rather than its merits. This is made worse by more and more of the big names in the MS-DOS world jumping onto the Mac bandwagon. Ashton-Tate's dBASE products have long dominated the MS-DOS (and before that the CP/M) world. Their entry the Mac arena was eagerly anticipated, and almost inevitably has been a major disappointment. Why, dBASE Mac isn't even compatible with the MS-DOS version (except for data), and is beaten on all counts by FoxBase+ which is not only much faster than dBASE Mac but is _totally_ compatible with existing dBASE applications. Despite this, dBASE Mac shows up regularly in the lists of best-selling Mac programs. Rather than risk buying a program from a company with a carefully established reputation as a Mac developer, corporate buyers will prefer to stick to the familiar names of the MS-DOS world. The lemming mentality says, "I want a database for my Mac. All the MS-DOS types talk about dBASE. Therefore dBASE Mac is the only product I will consider. Q.E.D."

Another example is WordPerfect. This program has gradually become the dominant force in MS-DOS word processing for very good reasons (it deserves its reputation far more than dBASE III). It has been ported over to many other computers, and has proven quite successful there too, largely because it maintains full file-compatibility between different computer systems. As with dBASE, the Mac version was long anticipated, but, if anything, has been even more of a disaster. As Dan Shafer says in the November 1988 MacUser, "...the folks at WordPerfect showed a woeful lack of understanding of how Mac applications ought to work, look, and feel. It is the word-processing disappointment of the decade..." And yet it is gradually creeping up the best-seller lists, at the expense of far better programs such as Microsoft Word and FullWrite.

The main economic argument for buying a Macintosh rather than an IBM clone which sells for half the price is that, because of the Macintosh user interface which all Macs have in common, users require far less time to master different applications. Surveys have shown that Mac users tend to use their computers more than MS-DOS users do, and tend to be comfortable with several different applications. Because programs like WordPerfect deviate so widely from the Macintosh software standards, each program must be learned from scratch, and training costs spiral.

I shared some of these ideas with a friend who does a fair bit of consulting in the MS-DOS world. He pointed out that the lemming mentality has long held sway there. After all, isn't that the reason they bought IBM in the first place? The stranglehold which programs like dBASE and WordPerfect have within the MS-DOS market is equally stifling.

And now I hear that Lotus is working on a Mac version of 1-2-3, and worse still that a version of WordStar,the dinosaur of all word processors, may not be far behind. As Mac users in what has long been an MS-DOS dominated world, let us try to be aware of and recommend the best available _Macintosh_ applications, rather than join the lemmings who would emasculate the Macintosh interface and turn our Macs into Little Blues, running faceless programs. Having dBASE and WordPerfect available on the Mac may get us in the door of the large corporations, but must it be at the cost of the ease of use which is the whole reason for the Mac's existence?

Macintosh Quick Tips

by Jim Ferr

(Reprinted from Volume 9 Number 1)

Sometimes, the parameter RAM on your Macintosh SE or Mac II can get corrupted. The most common effect this has is to prevent your system from recognizing a SCSI hard drive. To cure the problem, you have to "zap" the PRAM: point at the Apple menu and hold down the mouse button so the desk accessories appear. Then hold down Shift-Option-Command and select the Control Panel desk accessory. You should get a dialog box asking if you want to zap the PRAM. Hit "OK" and it's done. After re-booting, you will most likely find your hard disk is again recognized. This is particularly common on the Mac II.

Another common problem is a corrupted desktop file. The desktop file is like the table of contents file in a book. If some of your files are plain document icons, or double-clicking on an application's document doesn't launch that application, rebuilding the desktop file might help. To do this, just hold down the Command and Option keys while the volume you want to rebuild is being "mounted". (For a hard disk, hold down Command-Option while starting up; for a floppy disk, hold down Command-Option while inserting the disk). A predictable dialog box asking if you want to rebuild the desktop file will come up. Click "OK" or press Return.

Are you one of those people who never took time to read the manual that came with your Macintosh? Well at the very least, keep the Quick Reference Card handy. Here's one time-saving tip found on that card: when you want to close all open windows rather than closing each one individually, hold down the Option key while clicking the go-away box in the top left corner of the window and they will all close.

Echo IIc ProDOS Patch

by Peter Cameron

Street Electronics makes a little peripheral called the Echo IIc, formerly the Cricket, that works as a clock and adds voice and music capabilities to your Apple IIc. The Echo will also work with the enhanced IIe or IIgs on Super Serial card.

One of the most commons uses of the Echo is as a clock to time and date stamp ProDOS files. The Echo disk includes a modified version of ProDOS version 1.0.2, which can be moved to other disks to allow the Echo's clock function to emulate the Thunderclock.

Also on the disk is a program called ProDOS.mod. This program, the manual states, will modify the version of ProDOS in memory to allow use of the Echo clock function.

ProDOS, however, has changed over the years and any recent version of P8 in memory it will die a horrible death when the first ProDOS command is issued after you "BRUN ProDOS.mod".

ProDOS 1.0.2 will not accept many standard patches, such as Bird's Better Bye, and people wanting to use those enhancements are left without the clock function of the Echo.

ProDOS.mod works by replacing the clock driver built into ProDOS with its own driver that translates the Echo's version of time into something ProDOS can understand. ProDOS stores the location of the clock driver at $BF07 and $BF06. ProDOS.mod checks these locations and then overwrites the built-in clock driver with its own. It also changes the byte at $BF06 to $4C (JMP) from $60 (RTS) to enable the driver.

The clock driver in ProDOS resides in the "language card" area of memory. This part of memory is quite complicated. One bank of ROM and four 4K banks of RAM reside at the same address. The original

Listing 1

```
                        1   ********************************
                        2   *                              *
                        3   *   ProDOS.mod  Port 2         *
                        4   *                              *
                        5   * Original program by Street   *
                        6   *      Electronics             *
                        7   *                              *
                        8   *  Modifications to configure  *
                        9   *  P8 and operate in port 1    *
                       10   *                              *
                       11   *    by Peter Cameron          *
                       12   *    Assembled with Merlin Pro *
                       13   ********************************
                       14
                       15   ********************************
                       16   *                              *
                       17   *  Relocator                   *
                       18   *                              *
                       19   ********************************
                       20
                       21            ORG   $0300       ;program at $0300
0300: AD 07 BF         22            LDA   $BF07       ;find where ProDOS
0303: 85 42            23            STA   $42         ;expects the clock
0305: AD 08 BF         24            LDA   $BF08       ;driver to be and
0308: 85 43            25            STA   $43         ;store the location.
030A: A9 4C            26            LDA   #$4C        ;tell ProDOS there is
030C: 8D 06 BF         27            STA   $BF06       ;a clock routine.
030F: 8D 08 C0         28            STA   $C008       ;set AtlZP
0312: AD 89 C0         29            LDA   $C089       ;write enable RAM
0315: AD 89 C0         30            LDA   $C089       ;bank 1
0318: A0 69            31            LDY   #$69        ;length of driver
031A: B9 26 03         32   FRED     LDA   START,Y     ;relocate
031D: 91 42            33            STA   ($42),Y     ;clock
031F: 88               34            DEY               ;driver in
0320: 10 F8            35            BPL   FRED        ;bank 1
0322: AD 8A C0         36            LDA   $C08A       ;reset RAM bank
0325: 60               37            RTS               ;return control
                       38
                       39   ********************************
                       40   *                              *
                       41   *   Clock Driver               *
                       42   *                              *
                       43   ********************************
                       44
0326: 08               45   START    PHP
0327: 78               46            SEI
0328: AD AA C0         47            LDA   $C0AA       ;$C09A for port 1
032B: 48               48            PHA
032C: A9 0B            49            LDA   #$0B
032E: 8D AA C0         50            STA   $C0AA       ;$C09A for port 1
0331: A9 9E            51            LDA   #$9E
0333: 8D AB C0         52            STA   $C0AB       ;$C09B for port 1
0336: AD A9 C0         53   ONE      LDA   $C0A9       ;$C099 for port 1
0339: 29 10            54            AND   #$10
033B: F0 F9            55            BEQ   ONE
033D: A9 C0            56            LDA   #$C0
033F: 8D A8 C0         57            STA   $C0A8       ;$C098 for port 1
0342: A0 06            58            LDY   #$06
0344: A2 00            59   TWO      LDX   #$00
0346: A9 03            60            LDA   #$03
0348: 85 1C            61            STA   $1C
```

version of ProDOS.mod tried to modify ProDOS in bank two of main RAM. But recent versions of ProDOS don't live on that bank, so the modification doesn't work.

My modification to the program merely tells it to move the modification to RAM bank one. My version also cancels write enabling of the RAM bank in keeping with Apple's warning to leave soft switches the way you found them.

Another deficiency of the original program is that it required you to use the Echo in port 2 of the IIc. My modem prefers to operate out of port 2. I don't know why, but I have fewer problems when I use the "Modem Port" for telecommunications. A few minor changes to the ProDOS.mod program, noted in listing 1, allow use of the Echo on port 1.

It also has been brought to my attention that some people are having problems, for instance character loss while the time is being updated, with the Echo in port 1. I believe this may have something to do with the interrupt mechanism in the IIc. It also seems to vary with the version of the machine in use. So I have added a line, line 38, to the listing. This softswitch alters the keyboard buffering and hopefully will alleviate character loss problems.

Listing 2 is an ugly, though effective, program launcher that allows you to configure the Echo before starting an application. It is set up for P8 with Bird's Better Bye installed. Logic has P8 version 1.7 with the Bye code installed available for download I believe. (You can, of course, use your own program launcher, or do without one.)

You can add the "Bye" code to P8 yourself. You need a copy of ProDOS 1.1.1 off a Beagle Bros. or Software Touch disk:

```
BLOAD PRODOS,A$2000,TSYS
(This loads ProDOS 1.1.1 in
memory) BSAVE BYE,A$5700,L$300
(This saves the Bye code)
BLOAD PRODOS,A$2000,TSYS
(Load the version of P8 to
modify)
BLOAD BYE,A$5900
(Overlay the Bye code)
BSAVE PRODOS,A$2000,TSYS
(Save modified ProDOS)
```

This works for versions of ProDOS from 1.2 to 1.7. If you save Listing 2 as the startup file on your boot disk, you will be given the option of setting up the Echo as a clock in port 1 or port 2. The program would not be hard to modify to add a "no clock" option.

After installing the clock driver, the program quits to the Bye code. This allows you to run a system file from any drive. You change drives with the escape key, select a file with the arrow keys and run the file selected with the return key.

The quit to the Bye code and the clock are enabled until you reboot. If you need to change the port you want the clock in, quit, launch Basic.System on the boot disk and

```
034A: AD A9 C0  62   THREE   LDA   $C0A9      ;$C099 for port 1
034D: 29 08     63           AND   #$08
034F: D0 0F     64           BNE   FIVE
0351: E8        65           INX
0352: D0 F6     66           BNE   THREE
0354: C6 1C     67           DEC   $1C
0356: D0 F2     68           BNE   THREE
0358: C0 06     69   FOUR    CPY   #$06
035A: F0 2E     70           BEQ   SIX
035C: 68        71           PLA
035D: C8        72           INY
035E: D0 F8     73           BNE   FOUR
0360: AD A8 C0  74   FIVE    LDA   $C0A8      ;$C098 for port 1
0363: 48        75           PHA
0364: 88        76           DEY
0365: 10 DD     77           BPL   TWO
0367: 68        78           PLA
0368: 68        79           PLA
0369: 8D 92 BF  80           STA   $BF92
036C: 68        81           PLA
036D: 8D 93 BF  82           STA   $BF93
0370: 68        83           PLA
0371: 8D 91 BF  84           STA   $BF91
0374: 68        85           PLA
0375: 29 1F     86           AND   #$1F
0377: 8D 90 BF  87           STA   $BF90
037A: 68        88           PLA
037B: 0A        89           ASL
037C: 0A        90           ASL
037D: 0A        91           ASL
037E: 0A        92           ASL
037F: 0A        93           ASL
0380: 0D 90 BF  94           ORA   $BF90
0383: 8D 90 BF  95           STA   $BF90
0386: 2E 91 BF  96           ROL   $BF91
0389: 68        97           PLA
038A: 68        98   SIX     PLA
038B: 8D AA C0  99           STA   $C0AA      ;$C09A for port 1
038E: 28        100          PLP
038F: 60        101          RTS              ;end

--End assembly, 144 bytes, Errors: 0

Symbol table - alphabetical order:

FIVE=$0360      FOUR=$0358      FRED=$031A      ONE=$0336
SIX =$038A      START=$0326     THREE=$034A     TWO=$0344

Symbol table - numerical order:

FRED=$031A      START=$0326      ONE=$0336      TWO=$0344
THREE=$034A     FOUR=$0358       FIVE=$0360     SIX=$038A
```

The Ultimate "Input Anything" Routine

by Jim Ronson

For Apple IIc (or IIe or IIgs) owners using ProDOS who need a full-featured "input anything" routine for personal programs in AppleSoft BASIC, the answer may be no farther away than a binary program called SU2.OBJ on the original Apple IIc System Utilities disk. This "find" was reported in the December '85 issue of Open Apple by Christopher Hogue of Tecumseh, Ontario. There have been subsequent versions of SU2.OBJ, but the following instructions apply only to the original version I received on my System Utilities disk purchased with my IIc in 1984.

Once the SU2.OBJ file has been copied to the same disk as your program, it is necessary to modify it for your personal use. First, boot the computer so ProDOS and Basic.System, only, are loaded. Then BLOAD SU2.OBJ and get into the Monitor with CALL -151. Type the following:

2DAF:EA EA EA <Return>

Then hit Control-C to return to BASIC, and enter BSAVE SU2.OBJ. (ProDOS will save it to disk using the A and L parameters found on the disk.) The SU2.OBJ routines are now ready for use by your program via ampersand (&) commands.

The following information was gleaned from various issues of Open-Apple (now A2-Central) and my own experiments.

Note: SU2.OBJ must be the first program loaded after Basic.System boots, so it can relocate properly and reserve memory for its sole use.

The following commands are supported: &INPUT, &PRINT, &HTAB, &GET, &EXIT

```
&INPUT string variable
```

- has a blinking underline cursor
- the value you assign to the variable FL controls the maximum length of the input string. FL cannot exceed 160 characters, ie. maximum 2 lines of 80 column text or 4 lines of 40 column text.

-the character you assign to the string variable FL$ will fill the input area on the screen. For example, if FL$="*" and FL=5 then the input area on the screen will show "*****". As the keys are struck, the asterisks are replaced by the characters being entered.

- it can be used to provide a default entry string, for example, EM$="EDIT ME". The command &INPUT EM$ puts "EDIT ME" on the screen as the default. If the user hits the Return key, the string is entered. Other keys erase the default. The arrow keys simply move the cursor; Delete is required to actually delete anything.

- it will accept commas and semi-colons, Escape and the Apple keys. If &INPUT is terminated with Escape, then it sets the variable ES equal to 1. If terminated with Return, ES=0.

- the keys defined by the string variables OP$ and SO$ when hit in conjunction with the open or closed Apple keys will set OA=1 or SA=1 respectively. This could be as follows:

```
10 OP$="H":REM Define exit
character
20 & INPUT AN$
30 IF OA=1 THEN 1000: REM Branch
if open-Apple-H entered
```

Echo IIc Article (continued)

change the port. It will then go to the Bye code and you can run another system file.

Reference:
Apple IIc Technical Reference Manual, Addison-Wesley, 030,1238-A
ProDOS Technical Reference Manual, Addison-Wesley, 030-1187-A
Apple IIc Programmer's Reference Guide, Sams, 22422
Beneath Apple ProDOS, Quality Software
Open-Apple, now A2-Central

Listing 2

```
5  TEXT : HOME : VTAB 1
10  HTAB 8: PRINT "CRICKET/ECHO IIC LAUNCHER"
20  VTAB 5: HTAB 1: PRINT "This program allows you to select"
30  VTAB 7: HTAB 1: PRINT "the slot in which the Cricket or"
40  VTAB 9: HTAB 1: PRINT "Echo IIc will operate."
50  VTAB 11: HTAB 1: PRINT "It then allows you to choose a"
60  VTAB 13: HTAB 1: PRINT "system program to run."
70  VTAB 15: HTAB 1: INPUT "Choose a slot (1 or 2): ";S$
80  IF  VAL (S$) > 2 OR  VAL (S$) < 1 THEN  GOTO 5
90  IF  VAL (S$) = 1 GOTO 1000
100  IF  VAL (S$) = 2 GOTO 2000
1000  TEXT : HOME : VTAB 10: HTAB 6: PRINT "Installing clock driver
in slot 1"
1001  FOR X = 1 TO 1000: NEXT
1005  PRINT  CHR$ (4)"-/LAUNCHER/PRODOS.MOD1"
1010  TEXT : HOME : VTAB 10: HTAB 6: PRINT "Clock driver installed
in slot 1"
1020  FOR X = 1 TO 1000: NEXT
1030  PRINT  CHR$ (4)"BYE"
2000  TEXT : HOME : VTAB 10: HTAB 6: PRINT "Installing clock driver
in slot 2"
2001  FOR X = 1 TO 1000: NEXT
2005  PRINT  CHR$ (4)"-/LAUNCHER/PRODOS.MOD"
2010  TEXT : HOME : VTAB 10: HTAB 6: PRINT "Clock driver installed
in slot 2"
2020  FOR X = 1 TO 1000: NEXT
2030  GOTO 1030
```

- finally, and perhaps best:

Control-Y erases text from the cursor to the end of line

Control-X erases all text

Control-R restores thedefault text

```
&PRINT string variable
```

- Important: make sure you never use it to print a string longer than 160 characters, otherwise an area of ProDOS is overwritten and the program will crash.

- automatically word-wraps the string to 40 or 80 column screens. (no more breaks in the middle of words on screen or printer!)

```
&HTAB column number
```

- must always be used with &PRINT to begin printing at any position other than column 1.

```
&GET string variable
```

- has a blinking underline cursor and can return the Escape and Apple keys.

```
&EXIT
```

- removes SU2.OBJ from memory.

Remember that when your program is running, memory locations 1014 and 1015 must contain the values 0 and 139, respectively, for the ampersand commands to work (to direct input to the SU2.OBJ routine at $8B00). These values can be POKEd into memory, like so:

```
POKE 0,1015 : POKE 139,1016
```

An Adventure in IIc Repairs

by Peter Cameron

This is the story of how getting a new modem turned into much more of an adventure than I'd anticipated.

I'd been happily chugging along at 300 baud for a couple of years and finally decided it was time to move up the speed ladder a bit. A deal on a 1200 baud modem came along and that's when the adventure began. The new modem seemed to work fine on my IIc except that occasionally characters would not show up on the screen or garbage would break in. At first I blamed this on call waiting and spent a while trying to get around the problem this way... all to no avail.

Then I read that the original Apple IIc motherboards had a timing problem that affected the serial ports at 1200 baud or higher. A check with Apple Canada revealed that mine fell into that category and a free motherboard upgrade was available to fix the problem. Off I went to the local Apple repair shop and the next day I had a IIc with new insides.

The modem worked fine. No lost characters. No garbage. Then one day a new problem occurred. During a marathon letter-writing session things went crazy. Each keypress resulted in 10 to 20 of that letter appearing on the screen.

A call to the repair shop suggested it might be a sticky keyboard: Bring it in and they'd have a look. Off I went. The machine was plugged in and fired up — no problem. But a couple of hours later, each key was again producing extra characters. Cause of the problem? A bad keyboard chip. A new board was ordered. (The keyboard chip is soldered into the board, so it can't be easily pulled and replaced). I took the machine home and used it for a couple of weeks, one hour at a time.

Finally, a call. The new board was in. Off to the repair shop again and a new board is installed. It's burned in and no extra characters appear.

Home I go with visions of getting more than an hour of work done between breaks. I hook up the peripherals: external drive, modem, mouse etc. I put a disk in the internal drive and turn the machine on to boot. The internal drive jumps to life. The external drive also starts clattering away. This isn't right. I put in Copy II+. It tells me I have two UniDisk 3.5s on line. I wish I did but I don't own even one. But it says the disks in the phantom drives are bad.

I call the repair shop. "What?" is the response when the problem is described.

In goes the machine. Again it was out the same day. A new board again. This time the I/O chips were bad.

All is well again. Then, a couple of days later, after a couple of hours of Beyond Zork, a new sign appears. I type r-e-a-d but on the screen I see "rrrrrrrrrreeeeeeeeeeeaaaaaaaaddddddddd." Zork said it didn't understand. I did. It meant another trip to the repair shop.

This time I got while-you-wait service. Instead of the Qwerty-Dvorak keyboard my machine originally came with, I now have a French-English board. It uses a different keyboard chip. The modem is fine. The external drive only turns on when it's asked to. And I don't have an overabundance of characters floating around on the screen.

Anyway, I must add a thank you to the service people at Computer Connection in Markham. They never kept my computer for more than 24 hours, usually only a few hours, and are still talking to me after all of this.

They also now know more about the IIc than they ever wanted to.

"I'm sorry, Dave, but I don't have a 'scuzzy' port."

UCASE:

Convert BASIC Programs to Upper Case Only

by Jim Ferr

(Works under both DOS 3.3 and ProDOS.)

I had occasion recently to borrow a friend's Apple II Plus. After being spoiled by years on the IIe, the older computer with its lack of lower case took some getting used to. All my AppleSoft programs contained PRINT and REM statements in lower case, making them almost unreadable! Worse yet, I could not find a utility to convert them to upper case. Thus was born UCASE, a utility to instantly convert all text in the Applesoft program currently in memory to upper case only.

Using UCASE

UCASE loads into page 3 of memory, most of which is unused when AppleSoft is running. To convert an AppleSoft program, simply load it into memory and BRUN UCASE (or -UCASE under ProDOS). All text in your program is instantly converted upper case. The largest AppleSoft program I had on disk converted in just over one second. You don't have to access UCASE on disk more than once. To convert another program, just load it the normal way (eg. LOAD MY.PROGRAM) and enter CALL 768.

Entering UCASE

To enter UCASE, you can either type in the Merlin source code and assemble it, or you can enter the hexadecimal object code on the left-hand side of the listing. To enter the hex object code, use CALL -151 to enter the Monitor, after booting DOS 3.3 or ProDOS BASIC. (You

Listing 1

```
                        1    * UCASE Source Code
                        2    * By Jim Ferr
                        3    *
                        4    *
                        5    *
                        6    * Merlin Pro Assembler
                        7    *
                        8            ORG   $300        ;let's use page 3
                        9    *
                        10   CURPTR   EQU   $FE         ;2 byte pointer
                        11   NXTPTR   EQU   $FC         ;2 byte pointer
                        12   LNLEN    EQU   $FB         ;1 byte line length
                        13   *
0300: A9 01             14   FIRST    LDA   #$01        ;start processing at $801
0302: 85 FE             15            STA   CURPTR      ;save current position
0304: A9 08             16            LDA   #$08        ;(executed only once)
0306: 85 FF             17            STA   CURPTR+1
                        18   *
0308: A0 00             19   SAVNXT   LDY   #0          ;Save address of next line
030A: B1 FE             20            LDA   (CURPTR),Y
030C: 85 FC             21            STA   NXTPTR
030E: C8                22            INY
030F: B1 FE             23            LDA   (CURPTR),Y
0311: 85 FD             24            STA   NXTPTR+1
                        25   *
0313: A5 FC             26   CHKEND   LDA   NXTPTR      ;If next address $0000, end.
0315: C9 00             27            CMP   #0
0317: D0 07             28            BNE   SKIP
0319: A5 FD             29            LDA   NXTPTR+1
031B: C9 00             30            CMP   #0
031D: D0 01             31            BNE   SKIP
031F: 60                32            RTS               ;End of program / stop.
                        33   *
0320: C8                34   SKIP     INY               ;skip over line # (2 bytes)
0321: C8                35            INY
                        36   *
0322: A5 FE             37   SAVLEN   LDA   CURPTR      ;Calculate line length
0324: C5 FC             38            CMP   NXTPTR      ;and save in LNLEN
0326: B0 0A             39            BGE   NEXTPL
0328: A5 FC             40            LDA   NXTPTR      ;Diff=Next-Current
032A: 38                41            SEC
032B: E5 FE             42            SBC   CURPTR
032D: 85 FB             43            STA   LNLEN       ;Save line length+1
032F: 4C 4A 03          44            JMP   NXTBYT
                        45   *
0332: A9 FF             46   NEXTPL   LDA   #$FF        ;Diff=$FF-Current + Next
0334: 38                47            SEC
0335: E5 FE             48            SBC   CURPTR
0337: 18                49            CLC
0338: 65 FC             50            ADC   NXTPTR
033A: 85 FB             51            STA   LNLEN       ;Save line length+1
033C: 4C 4A 03          52            JMP   NXTBYT
                        53   *
033F: A5 FC             54   DONEXT   LDA   NXTPTR      ;copy address of next line
0341: 85 FE             55            STA   CURPTR      ;to current line pointer
0343: A5 FD             56            LDA   NXTPTR+1
0345: 85 FF             57            STA   CURPTR+1
0347: 4C 08 03          58            JMP   SAVNXT
                        59   *
034A: C8                60   NXTBYT   INY               ;look at next byte
```

will see an asterisk, the Monitor's prompt character.) Then start entering the program object code, like so:

```
300:A9 01 85 FE A9 08 85
FF <Return>
```

You can enter as many as 250 or so codes before hitting the Return key, but I don't recommend it. Make sure you always stop just before another address is listed. To continue entering from the point we stopped at above, we'd type:

```
0313:A5 FC C9 00 D0 07 A5
FD
```

...and so on. After you have entered all the codes (there are only 139 of them), get back into BASIC by typing Control-C and pressing Return. Then enter the following:

```
BSAVE UCASE,A768,L139
<Return>
```

UCASE is now on disk for use anytime you need to convert a program.

How it Works

UCASE starts converting the Applesoft program in memory at $0801. Unless you are doing something fancy, this is where your program begins. This address is loaded into CURPTR at line 14. Applesoft lines in memory begin with two bytes pointing to the address of the next line, and another two bytes that represent the actual line number. If the pointer to the address of the next line number is $0000 then we've reached the end of the program. CHKEND ensures we don't process past the end of the program. At line 34 we skip over the line number (2 bytes). Each Applesoft line ends with a zero byte. UCASE does not rely on that zero byte to signal the end of a line because zero bytes can occur within lines, for instance when a GOTO references a line number with a zero in its hexadecimal representation. Instead, the address of the current line is compared to the address of the next line and the difference (the length of the current line) is stored in LNLEN.

It is important when converting a program that valid program information isn't inadvertently converted. UCASE only converts characters in REM statements and characters in quotes. RDLN (line 61) is the routine that searches for REM statements and quote marks, calling CONVRT (line 91) to convert any lower case characters found.

If you don't feel up to typing in UCASE, it is available on the LOGIC BBS and on the ProDOS 70 disk in the LOGIC Disk Library. The file could be copied to a DOS 3.3 disk from ProDOS 70 with Copy2Plus.

Listing 1 Continued

```
034B: 98          61   RDLN    TYA              ;put offset in A
034C: C5 FB       62            CMP   LNLEN      ;have we reached EOL?
034E: B0 EF       63            BGE   DONEXT     ;if so, do next line.
                  64   *
0350: B1 FE       65            LDA   (CURPTR),Y ;get a byte
0352: C9 B2       66            CMP   #$B2       ;a REM token?
0354: D0 02       67            BNE   QUOTE
0356: F0 06       68            BEQ   TILEND     ;if so, process til EOL
0358: C9 22       69   QUOTE   CMP   #$22       ;a quote mark? (")
035A: D0 EE       70            BNE   NXTBYT     ;if not, read next byte
035C: F0 0E       71            BEQ   TIL22      ;process 'til next quote
                  72   *
035E: C8          73   TILEND  INY              ;REM. Process 'til EOL
035F: 98          74            TYA
0360: C5 FB       75            CMP   LNLEN      ;end of line yet?
0362: B0 DB       76            BGE   DONEXT     ;is so, do next line.
0364: B1 FE       77            LDA   (CURPTR),Y ;read byte
0366: 20 7E 03    78            JSR   CONVRT     ;convert to uppercase
0369: 4C 5E 03    79            JMP   TILEND     ;and continue.
                  80   *
036C: C8          81   TIL22   INY              ;process until next quote
036D: 98          82            TYA              ;or spurious end of line
036E: C5 FB       83            CMP   LNLEN      ;end of line?
0370: B0 CD       84            BGE   DONEXT
0372: B1 FE       85            LDA   (CURPTR),Y ;get byte
0374: C9 22       86            CMP   #$22       ;closing quote?
0376: F0 D2       87            BEQ   NXTBYT     ;if so, process rest normally
0378: 20 7E 03    88            JSR   CONVRT     ;otherwise, convert char
037B: 4C 6C 03    89            JMP   TIL22      ;and continue.
                  90   *
037E: C9 61       91   CONVRT  CMP   #$61       ;Convert to uppercase
0380: 90 08       92            BCC   OUT        ;if in range a..z
0382: C9 7B       93            CMP   #$7B
0384: B0 04       94            BCS   OUT
0386: 29 DF       95            AND   #%11011111
0388: 91 FE       96            STA   (CURPTR),Y ;write converted character
038A: 60          97   OUT     RTS              ;and return.

--End assembly, 139 bytes, Errors: 0
Symbol table - alphabetical order:
?  CHKEND  =$0313     CONVRT  =$037E     CURPTR  =$FE       DONEXT  =$033F
?  FIRST   =$0300     LNLEN   =$FB       NEXTPL  =$0332     NXTBYT  =$034A
   NXTPTR  =$FC       OUT     =$038A     QUOTE   =$0358  ?  RDLN    =$034B
?  SAVLEN  =$0322     SAVNXT  =$0308     SKIP    =$0320     TIL22   =$036C
   TILEND  =$035E
Symbol table - numerical order:
   LNLEN   =$FB       NXTPTR  =$FC       CURPTR  =$FE    ?  FIRST   =$0300
   SAVNXT  =$0308  ?  CHKEND  =$0313     SKIP    =$0320  ?  SAVLEN  =$0322
   NEXTPL  =$0332     DONEXT  =$033F     NXTBYT  =$034A  ?  RDLN    =$034B
   QUOTE   =$0358     TILEND  =$035E     TIL22   =$036C     CONVRT  =$037E
   OUT     =$038A
```

New Members

Michael Levstein: Willowdale, Ontario, uses his Mac plus for word processing and Paint programs.

Bruce Evan: Nobleton, Ontario has had his IIc for several years. Bruce uses it mainly for keeking records and bookkeeping. For fun and relaxation, he switches to playing war games by mail.

Bob Nigro: Grimsby, Ontario. Bob has a IIc with a colour monitor, external drive, printer and modem.

John-Michael Velazquez: Toronto, Ontario has a Mac SE which is most often used for word processing and games.

Paula E. Elliot: Weston, Ontario. Paula has a Mac 512/800K. Paula main interest is MicroSoft Works.

David Link: Toronto, Ontario is kept busy using his Mac SE for word processing, doing accounts and keeping track of the stock market.

Elizabeth Kelly: Toronto, Ontario has a IIe. Sorry folks, but that's all we can tell you about Elizabeth.

Glen Denyer: Richmond Hill, Ontario. Although Glen is familiar with the IIe and has done some programming, he owns a Mac Plus which he uses for his work as an English teacher. He also does word processing for work, but for pleasure and relaxation, Glen resorts to games and BBSing, and editing articles for Maple Orchard.

Bob Bellec: Mississauga, Ontario owns a Mac SE. His favourite software consists of Word, PowerPoint and MacPaint.

Peter Schlecht: North York, Ontario uses his Mac SE for word processing and games.

J. Menddoza: Scarborough, Ontario does programming in Basic and Pascal. His IIc is also used for home applications and entertainment.

Rafael Osorio: Downsview, Ontario has a II+ clone. Raphael is currently devoting his computer to education.

Cultural Software: Toronto, Ontario has several Macs, including the Plus, the SE, the II, etc., and is an authorized Apple reseller.

Donna Barker: Toronto, Ontario. Donna and her IIGS are kept very busy with Appleworks GS, DTP, business applications, graphics and telecommunications. She reads 5 different computer magazines and subscribes to 3 commercial BBS's. (Whew! And I thought I was kept busy being General Manager of LOGIC.)

Spectrum Productions: Scarborough, Ontario uses a Mac Plus for word processing, data processing (mailing lists) and spreadsheets.

Dr. Richard Gladstone: Willowdale, Ontario. Dr. Gladstone owns a Mac SE. Dr. Gladstone's main applications are word processing and Hypercard.

Fernando Gonzalez: All we can tell you about Fernando is that he is an Apple user.

Dean Franchetto: Dean has a background in Mac and IBM programming, Computer Service and Technical expertise. He uses his Mac for personal and business purposes.

John G. Lynch: Uxbridge, Ontario. John is one of many who own both a Mac and (pardon the expression) an IBM. He uses his equipment for word processing, telecommunications and spreadsheets. John claims that he is a "rank novice" and is "facinated by the new world that his Mac has opened to him."

Helena Szczepanowska: Helena became a member in June. She owns a IIc and is new to the wonders of computing. Helena is one of the most enthusiastic computists we have met in a long time and is very anxious to learn. She has also generously offered to help LOGIC in any way possible.

Gillian Delplace: Toronto, Ontario owns a Mac.

From the Apple II Meeting Committee

Members: Jim Low, Robert Sutherland, Richard Kay, Glen Lalonde
Prepared by Jim Low

The Apple II meeting on June 20 featured John Batiuk of Apple Canada. He demonstrated the new Apple II Video Overlay Card which works with the IIe and IIgs. The card with software is available for a little over $800 Canadian. John pointed out that such inexpensive video overlay is not yet available for the Macintosh.

John also demonstrated the beta version of Apple IIgs System 5.0. It is fast! Release date is about August. John said that Apple IIgs System 5.0 has the look and feel of the upcoming Mac System 7.0. So, Mac users, if you want to see what's coming, take a look at the new GS/OS.

After the evening's demonstrations, John stated that Apple continues to support and enhance the Apple II line. I was impressed with what I saw.

Before the meeting, Keith Falkner conducted the informal "Apple II Fundamentals" session. He described the workings of a disk drive, and showed a disassembled one. He answered a number of questions.

AppleWorks version 3.0 was announced, and a handout was available which described some of the features.

As we go to press, the July 18 meeting, on Databases, was still in the future.

The Apple II meeting on August 15 is our semi-annual "Member's Night." This is when you have an opportunity to spend a few minutes demonstrating your uses of your Apple II. This is the meeting where you will see what your fellow members of LOGIC are doing. Have something to show us? Call one of the Apple II Committee members and reserve your 5 to 15 minute spot for this meeting. Jim Low: 690-3943, or Robert Sutherland: 465-2945. Disk Sales and an informal "Apple II Fundamentals" session will start at 7:00pm. The meeting starts at 7:30. Refreshments will be available. See the meeting notice for the location.

In September, the Apple II and Mac meetings are combined into one: It's the Annual General Meeting, on Tuesday, September 5 (right after Labour Day). The meeting is scheduled to start at 7:00pm. Besides the annual meeting, we plan on showing some videos from Apple, and a program on Genealogy. The program Family Roots will be highlighted, as it is available for both the Apple II (II Plus, IIe, IIc and IIgs) and the Macintosh (512K and up).

Do you have any ideas for future Apple II meetings? Please contact one of the members of the committee, or leave a message on the LOGIC "Hot-line", at (416) 323-0828. Better still, how about becoming a member of the committee? A couple of members have indicated they would like to "retire" and pass on their positions to others with fresh ideas.

From the Disk Order Dept.

by Dan Mulvihill

Hello and welcome to the first Disk Sales / Mail order Column in Maple Orchard. I thought it would be a good idea to write occasionally and let the membership know what is going on in the Disk Sales and Mail Order Department.

Many new members will ask "What have you got?" Well, we have Public Domain software under the following headings:

Apple II DOS 3.3 (5.25" only)
Apple II ProDos (5.25" and 3.5")
Apple works (5.25" and 3.5")
PrintShop Graphics (5.25" only)
PrintShop GS (3.5" only)
Macintosh (3.5" only)
Macintosh II (3.5" only)
Hypercard Stacks (known as Stackware in our library) (3.5" only)

Beginning with this announcement, LOGIC now also has blank 3.5" disks for sale. They come in loose bulk or 10 to a box, with labels. The prices are $2.00 each (including PST) for members , and $2.40 (including PST) for non-members. That works out to $20.00 a box for members and $24.00 for non-members. (See Order Form)

While all public domain disks are shipped free of charge, there is a shipping and handling charge of $2.00 per box for shipping blank disks. Our blank stock are Sony disks and are the same disks that we have been using for the public domain library for the last several months. We have found their failure rate to be less than 0.3%.

Now back to our public domain library. There have been some questions about placing orders. There are several ways to order from the P.D. library. The first is to mail us the order form found in every issue of Maple Orchard, along with your VISA number and expiry date, or a personal cheque. Please, do not send cash. Another popular method is through the LOGIC BBS. Any order placed on the BBS requires your VISA number and expiry date. Without the expiry date, we cannot ship your order. Also, if you are a resident of Ontario, please add the 8% Provincial Sales Tax.

Now to the last and sometimes most intriguing aspect of the P.D. library: "What if..." Occasionally, we do experience problems filling orders. Usually the delay caused is less than a day or two. However, there have been cases where we have shipped a package of disks and they never arrived. Most annoying for everyone concerned. Please, do everyone involved a favour: call us or send E-Mail to [LOGIC] (Sid Stulberg) on the LOGIC BBS. We can't fix it if we don't know it's broke. And believe me, we will fix any problem to the best of our ability.

Mac 248: AH! Business Tools

Three useful shareware programs from Ah! Hilltop. AH! Schedule 1.2 is for project management: tracks project tasks, responsible people, schedules, slides, and completion; it is data driven and features fast updating, charts, variable time periods, multiple pages, and graphical and data interfaces via the Clipboard. AH! Budget 1.1 creates monthly budget tracking graphs from actual, budget, and plan data, and calculates variances etc. AH! Bones 1.1 creates "fishbone" charts showing cause and effect relationships.

Mac 249: Utilities

At long last, we have the release version of ResEdit 1.2, Apple's resource editor. ResEdit is an enormously powerful utility which lets you customise programs very extensively; it can also quickly render them unusable if you don't know what you're doing! Use ONLY on backup copies! Also included on this disk is ZTerm 0.8, the latest version of this new telecommunications program. Add/Strip 2.72 allows many useful manipulations of TEXT files. Address Book DA 1.9 makes addresses and phone numbers instantly available. AutoSave II will automatically save documents in any application. SuperClock 3.4 is the latest version of this ever-popular menu clock.

Mac 250: The Games of Summer

Beat the summer heat with some of the best Mac games around! 1000 Miles is one of my very favourite games. It's been around for a couple of years but somehow never made it into the Mac library before; here it is at last. It is a superb simulation of the popular French card game Mille Bornes, which in turn is a simulation of a road rally. Star 'Roids 5.4.1 is a good asteroids variant. Dragon won second prize in the last world computer GO tournament. GunShy 1.2 is a freeware version of Shanghai using Mac icons instead of Mah-Jong tiles, and has been colourized for the Mac II. Best Baseball 3.3 is a baseball strategy simulation. Bugglings simulates life in a test tube; it's based on the Computer Recreations column in the May '89 Scientific American. Eliza is a MacInTalking version of the famous Rogerian therapist simulation. Finally there are three programs by the late Duane Blehm, whose parents have asked that these be released in the public domain in place of previous locked shareware versions: Cairo Shootout, Stuntcopter, and Puzz'l. Pass the lemonade!

Mac 242: About System 7.0

System 7.0 isn't here yet, but Apple has released some tantalising glimpses of what it will include. This disk contains two MacWrite documents describing these features, plus an elaborate demonstration of one of them: Outline Fonts. This demo consists of two HyperCard stacks and an animated graphic demo prepared using Farallon's ScreenRecorder.

Mac 243: DataFrame Update

This disk is only of interest to owners of DataFrame hard drives. It includes a new driver, Manager 4.0, and new versions of the powerful utilities supplied by DataFrame: DiskFit 1.5, SuperSpool 5.0, and SuperLaserSpool 2.0. These utilities will only work if a DataFrame drive is hooked up to your system and running; they all do a hardware check when they're run.

Mac 244: System 6.0.3: System Tools

Mac 245: System 6.0.3: Printing Tools

Mac 246: System 6.0.3: Utilities 1

Mac 247: System 6.0.3: Utilities 2

This version of the Macintosh System Software has been out for some time (it's dated December 9, 1988), but I haven't released it previously because it appears to be a bit buggy, and causes a lot of trouble with several popular INITs and applications. However, it is necessary if you're running a 68030, either on the motherboard or on an accelerator card. Otherwise, stick to System 6.0.2 (Mac disks 224-227).

Mac II 11: Image 1.13

Image 1.13 is a program for capturing, editing, analysing, annotating, animating, colouring, and printing grayscale and colour images. It supports PICT and TIFF files, and features MacPaint-like editing, eight levels of magnification, and multiple windows. It was written by Wayne Rasband for analysing medical images, and does things that previously took a minicomputer. It is public domain, not shareware, and truly awesome! Requires at least 2 megabytes of RAM.

Mac II 12: FlexReader II

Flex™ is a new image compression technology which produces files half the size of other formats. FlexReader II, version 1.10 lets you read Flex data files, Flex resource files (slide shows), and PICT files, and also save files in Flex and PICT formats. Comes with an 11-image slide show and a number of Flex images.

ProDOS Disks

ProDOS 72 Warp 6 BBS Version 2.0
(Replaced by ProDOS 75.)

ProDOS 73 Group Lotto Program

Group Lotto is a program written by Jim Rae, who is a member of LOGIC. This program will help you to operate a LOTTO 6/49 pool for a group of people. The main purpose is to simplify the job of checking the tickets for a winner. It allows you to make up, edit and print ticket numbers, player lists and the winning tickets.

ProDOS 74 AppleSoft Program Documenter (A-DOC)

AppleSoft Program Documenter is a great programmer's aid designed to encourage and assist you with the preparation of documentation for any of your AppleSoft programs. A-DOC will find all the variable, find all the GOSUBs and CALLs, find all the PEEKs and POKEs, find all the defined functions, and find all ampersand calls. If you have written an AppleSoft program, A-DOC will assist you in your documentation.

ProDOS 75 Warp Six BBS
(Version 2.01)

Hierarchical general file section and stale user purge has been added. Has everything you'd expect in a BBS except Xmodem. Minimum required is a 64K IIe, ProDOS, Hayes external modem & Super Serial Card or AE DataLink. (IIgs serial port not supported.) DataLink 1200 driver untested. Written by Jim Ferr, who was system operator of Warp Six BBS in Toronto for many years. Documentation included, on disk (One double-sided 5.25, or one 800K 3.5).

Apple IIgs Disks

GS-61 Application Disk #4

There are some really great public domain programs that are available for the Apple IIgs. This disk contains just a few. Diced is a very powerful Desktop ICon EDitor, which allows you to create custom icons and store them in your ICONS folder. Showtext is a simple program that allows you to view text files. Back.Rest is a backup/restore utility for the Control Panel, you can backup your Control Panel settings and them restore them at a later time. UWGS is a powerful set of utilities for the Apple IIgs. It comes with a Launcher and Utility program. Using a combination of these two utilities you will have a very large set of utilities. .Font Doctor is very powerful Font Editor. If you want to create your own font or just modify an existing font, this program will be perfect. This disk also contains some files that will allow you to modify WordPerfect so that it can printout in Italics. There are some other useful utilities contained on this disk.

GS-62 Games Disk #3

Here some games to provide you with some entertainment. Solitaire is the famous card game of Solitaire. Backgammon can be used to play against the computer, or with a friend. You can also learn how to play backgammon. Concentrate requires you to remember where the cards are and remove the pairs. Shakespeare Tiles are a new tile set for Shanghai. Poker is another card game with betting. As The Link Turns is a game made to help promote the motto "Apple II Forever": You get to shoot up Macs.

GS-63 Genesys Program Demo

Genesys is a tool that makes software development faster and smoother than you ever thought possible. Programmers and non-programmers alike can use Genesys for specifying, testing, and communicating the look-and-feel of software applications. You can build an entire interface by clicking and drawing, without typing one line of code. All features of the Apple IIgs graphic interface are supported. Genesys will generate source code, saving you weeks, even months of development time. Demo prototypes can be created in a few easy steps.

GS-64 Music Studio Songs Disk #1

This disk contains a wide variety of songs for use with Music Studio. There is everything from Chariots of Fire to Always a Woman. If you have Music Studio and would like to expand your collection, this is a great disk.

GS-65 Sword of Sodan

Sword of Sodan adds a new level of sophistication to arcade action. Screen-sized characters, riveting game play and digitized sounds enhance the thrills as you leap, fight, and think your way past graveyard spirits, giant scorpions, deadly pitfalls and more. This demo shows 3 levels of play.

LOGIC Disk Order Form

Please cut out or photocopy this form.

Qty.	Disk No.	Disk Name	Size	Price	Totals
1	ProDOS 1	(Example)	5.25"	6.48	6.48
1	MAC 1	(Example)	3.5"	6.48	6.48
		Start your order below:			
				SUBTOTAL:	
				Ontario residents add 8 per cent sales tax:	
				Disk Order TOTAL:	

FREE SHIPPING! (BY FIRST CLASS MAIL)

PLEASE PRINT CLEARLY

Name: _____ Phone: ( )_____

Street: _____ Apt: _____

City: _____ Province/State: _____

Postal Code: _____ Country: _____

Disks are **$6.48** for LOGIC Members (or if you are enclosing your membership fee) and **$11.11** for non-members.

Enter the quantity, disk number (eg. ProDOS 75), the price ($6.48 or $11.11) and the extension. Subtotal and add sales tax if you are an Ontario resident, then total your disk order.

Charges are for copying and handling only. You are encouraged to forward shareware fees where applicable.

Disclaimer: LOGIC can assume no liability for any damages, however caused, from the use of LOGIC disk library diskettes, nor does LOGIC guarantee their fitness for any purpose.

The LOGIC disk library is composed of public domain, freeware and shareware products. LOGIC does not claim any copyright on individual programs and does not supply technical support for disks. Defective disks will be replaced.

Special Offer:

Bulk Sony 3.5 inch Diskettes

10 per box; Labels Included.
Members: $18.52 per box
Non-Members: $22.22 per box
Ontario residents please add Ontario sales tax. Add $2 for shipping and handling per box.

If you are a LOGIC member, please write your Membership Number here: _____

Method of Payment

(check one) Sorry, other credit cards not accepted. Please make cheques payable to LOGIC.

☐ **VISA** **VISA Card #:** _____ **Expiry:** _____

or

☐ **CHEQUE (enclosed)** **Signature for VISA:** _____

LOGIC Membership/Subscription Form

Please cut out or photocopy this form.

PLEASE PRINT CLEARLY

Please complete this form and bring to a LOGIC meeting or mail to:

LOGIC
PO Box 696, Station B
Willowdale, ON
M2K 2P9
(416) 323-0828

Name: _____ Phone: ( )_____
Street: _____ Apt:_____
City: _____ Province/State: _____
Postal Code: _____ Country: _____

LOGIC is an Apple User Group for Apple II and Macintosh users. Membership in LOGIC includes Maple Orchard, our bi-monthly magazine, and 40 minutes per day access on the LOGIC Information System. In addition, membership entitles you to free admission to both Special Interest Group and regular monthly meetings (both Apple II and Macintosh) and a discount on LOGIC Public Domain Library diskettes. LOGIC is non-profit and is incorporated in the province of Ontario.

(check one only) Membership includes Maple Orchard

New Membership:	**1 year**	☐	**$45.00**
	2 years	☐	**$80.00 (Special)**
Membership Renewal:	**1 year**	☐	**$40.00**
	2 years	☐	**$75.00 (Special)**
Maple Orchard only:	**6 issues**	☐	**$20.00**

Are you renewing your LOGIC membership?

For a renewal, please enter your membership #: _____

Please send my catalog disk on (circle one) 3.5" 5.25" diskette

Method of Payment

(check one) Sorry, other credit cards not accepted. Please make cheques payable to LOGIC.

☐ **VISA** **VISA Card #:** _____ **Expiry:** _____

or

☐ **CHEQUE (enclosed)** **Signature for VISA:** _____

Applying for or renewing your membership? Please answer the following:

Make and model of your computer(s): _____
Types of applications you most often use: _____
What kind of modem do you have (if any) Eg. Hayes 2400: _____
Are you interested in downloading software from our Bulletin Board System? Yes: ☐ No: ☐
What computer magazines or publications do you read? _____
How would you rate your computing skill level? Novice: ☐ Intermediate: ☐ Advanced: ☐
What commercial online systems, if any, do you subscribe to? _____
Would you volunteer to help LOGIC and if so in what areas? _____
_____
Tell us what other services you'd like to see LOGIC provide: _____
Please use the rest of this space to make any comments, suggestions or criticisms: (don't pull any punches)
_____
_____

FOR OFFICE USE ONLY

DATE: VISA: CHEQUE: MBR.#: EXPIRY:
D.B. DATE: VALIDATED: MAILED: LIB.DISK:

NOTICE OF ANNUAL GENERAL MEETING

Loyal Ontario Group Interested in Computers (LOGIC)

Date: Tuesday, September 5.
Time: 7:00pm
Place: Burgundy Room A (Level "CL"), North York Memorial Hall,
5110 Yonge Street, North York, Ontario

Purpose:

1. **Consideration of officer reports**
2. **Election of new Directors**
3. **Voting on changes to LOGIC's by-laws as follows:**

Add to the By-laws: "That LOGIC's Executive Committee consist of the following five Officers: President, Vice-president, Secretary, Treasurer and General Manager."

Replace article III, item 7 with:

"Directors and executive committee members shall not receive any stated remuneration for acting as Directors. Directors shall serve as such without remuneration and no director shall directly or indirectly receive any profit from his position as such; provided that a director may be paid out of pocket expenses incurred by him in the performance of his duties. This does not preclude any director from serving the corporation as an officer or in any other capacity than that of Director and receiving compensation for services performed. This also does not preclude any director who is engaged in or is a member of a firm engaged in any profession or business from acting in the business and being paid the usual professional costs and charges for any administration of the affairs of the corporation. In cases where such business puts a Director in a conflict-of-interest position, said Director shall refrain from voting upon any issue affected by said business that is brought before the Board."

From: LOGIC
P.O. Box 696, Station B
Willowdale, Ontario
M2K 2P9

To:

9090 Xchg
Kiyoshi Masuda
Apples B.C. Computer Soc.
P.O Box 80569,
Burnaby B.C. V5H 3X9

FIRST CLASS MAIL

AIRMAIL IF INTERNATIONAL

Attn. Postmaster: Address correction requested.

LOGIC Meetings — Be there!

All meetings take place at North York Memorial Hall, Burgundy Room A (Level CL, below the library), 5110 Yonge Street, one block north of Sheppard and physically one block west of Yonge.

August Apple II Meeting — Members' Night

Tuesday, August 15, 7:30 pm. Apple II fundamentals and disk sales begin at 7:00pm. Member's Night is an opportunity for members to give short presentations on uses they aremaking of their computers. This meeting is open to everyone — members or non-members.

August Macintosh Meeting — New High Speed Telecommunications Standards

Tuesday, August 15, 7:30 pm. Macintosh Public Domain Library disk sales begin at 7:00pm. A representative from Hayes, the acknowledged industry leader in modem technology, will do a presentation on new telecommunications standards being developed for high-speed modems.

Annual General Meeting

Tuesday, September 5, 7:00 pm. Annual General Meeting, followed by a presentation on Genealogy software on the Macintosh and Apple II, and a presentation by Apple Canada. This meeting combines the Macintosh and Apple II meetings. **There will be no meeting on the third Tuesday in September.**

Note: topics subject to change without notice. Check the hotline (416-323-0828) or the LOGIC Information System for any changes.